

Department of Planning and Environment

Flying-fox Care Assessment Tool

An application check against the Code of Practice for Injured, Sick and Orphaned
Flying-foxes

Volunteer Wildlife Rehabilitation Sector



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Purpose

This Flying-fox Care Assessment Tool (the tool) has been designed for wildlife rehabilitation groups to monitor their level of compliance with the *Code of Practice for Injured, Sick and Orphaned Flying-foxes* (the code). Its primary purpose is to proactively help inform and guide improvements to their standards of flying-fox care and optimise post-rehabilitation outcomes.

The tool is for use by species coordinators and experienced flying-fox rehabilitators such as mentors and/or buddies. It aims to provide an objective snapshot of a group member's application of all, or specific parts of the code. When applied across multiple members, the tool can also strategically inform future training and guide grant applications for replacement enclosures or other assets which are not code compliant.

Everyone authorised to interact with flying-foxes is required to act in accordance with the code. It has been developed to protect the welfare of rescued flying-foxes and support the conservation of wild flying-fox populations. Compliance with the code is a condition of a Biodiversity Conservation Licence to conduct wildlife rehabilitation under the *Biodiversity Conservation Act 2016*. The person applying the tool must be familiar with the content and application of the code.

Wildlife rehabilitation groups are encouraged to maintain a register of volunteers who have been assessed under this tool and to compare against previous inspections.

How to use this assessment tool

The tool is divided into 4 sections:

1. training
2. records management
3. facility inspection
4. field observation of animal rescue and transport.

An inspection may target one or more sections of the tool. Each section aligns with specific standards in the code. It is preferable to complete Sections 1, 2 and 3 together or Sections 1 and 4.

Content of each section

- A place to enter the assessor and group members names, signatures and date of inspection.
- Code standards to be assessed.
- An overall assessment question and prompts to help guide the assessment.
- Targeted questions which align with specific standards in the code.
- This section provides places to select a response, score and tally the results of the assessment.
- Notes about any observations you make during the inspection and to make specific recommendations.

What to take to the assessment?

It is important to do some planning before you go on-site.

Things to think about

- Contact the group member and arrange a mutually convenient time.
- Consider if an observer should also attend with the assessor.
- Explain the purpose of the assessment to the person before coming and at the premises.
- Ask if there are flying-foxes on-site and at what stage of rehabilitation.
- Identify which standards you intend to assess.
- Pack a copy of the flying-fox code of practice.
- Be familiar with the data report template.
- Check the group's register of members who have been vaccinated against Australian Bat Lyssavirus.
- Bring a mobile phone and ask if you can take photos.
- Take a tape measure.
- Bring a pencil, pen and clipboard or laptop.

Scoring each section and collating the results

Each targeted question requires the assessor to circle the appropriate answer in the adjacent column. Only one answer can be selected. The answers can be then be collated, scored and converted to a percentage.

This worked example has 5 target questions.

Code of Practice standards: 3 Rescue; 4 Transport

Assessment question: Was the rescue of the flying-fox undertaken in accordance with the standard?

Prompts: Observe the method and conduct of the flying-foxes actual rescue.

Target questions

Select one response for each question

1. Did the rescuer use the correct rescue equipment?	Yes	No	N/A
2. Did the rescuer limit the exposure to additional stressors such as onlookers, loud noises, other animals and extremes of pressure?	Yes	No	N/A
3. Did the rescuer use the correct method to capture the flying-fox?	Yes	No	N/A
4. Did the rescuer separate all dependent flying-foxes that were attached to their dead mothers?	Yes	No	N/A
5. Did the rescuer stabilise any flying-fox with a fracture using extra padding and support before transport?	Yes	No	N/A

How to calculate an assessment score

Step 1: Tally the selected responses for each column, e.g. 2 Yes; 2 No and 1 N/A

2/5

2/5

1/5

Step 2: Subtract the number of Not Applicable (N/A) answers from the total number of target questions. In this example $5 - 1 = 4$

2/4

2/4

Display the score for each column as a fraction

Step 3: Convert the above fraction to a percentage (%)

50%

50%

In this example, the 5 target questions were scored as 'Yes' for 2, 'No' for 2 and N/A for one. The question about dependent young flying-foxes did not apply in this example because there wasn't one on-site. So only 4 target questions apply to this assessment. The total assessment score is therefore 2/4 (50% Yes and 50% No).

Insert the score or percentage for 'Yes' in the Assessment Summary.

Section 1: Work health safety and training

The purpose of this section is to assess the currency of the members Australian Bat Lyssavirus vaccination status and their training. This should be done before other sections of the assessment and verified with the group member.

Member Name:	Signature:	Date:
Assessor Name:	Signature	Date:

Code of Practice standard: 11 Training

Assessment question: Is the member vaccinated and trained work with flying-foxes?

Prompts: Check the member's details and group vaccination and training register before the inspection. Ask to see their PPE. Confirm what tasks the member does with flying-foxes and what training they require.

Target questions

Select one response for each question

1. Is the member authorised to work with flying-foxes?	Yes	No
2. Is the member vaccinated against Australian Bat Lyssavirus including titre monitoring and booster vaccinations	Yes	No
3. Has the member completed the required training for the tasks they perform?	Yes	No
4. Is the member's training current?	Yes	No
5. Does the member possess the correct personal protective equipment (e.g. masks and puncture-resistant gloves)?	Yes	No

Tally responses for each column and display the score as a fraction

Convert to a percentage (%)

Notes:

Recommendations:

Section 2: Records management

The purpose of this section is to assess the member's flying-fox records. It may help to review the previous year's records before commencing the assessment.

Member Name:	Signature:	Date:
Assessor Name:	Signature	Date:

Code of Practice standard: 12 Record keeping

Assessment question: Is the member's record sheet current and accurate?

Prompts: Request to see the current record sheet. The fields should be equivalent to the standard i.e. the National Parks and Wildlife Service data template.

Target questions

Select one response for each question

1. How many flying-foxes currently in care are listed in the record sheet?	All	Some	None	N/A
2. How many flying-foxes have their species name, rescue date, exact rescue location details and encounter data entered?	All	Some	None	N/A
3. How many flying-foxes have their initial weight entered and forearm length entered?	All	Some	None	N/A
4. How many dead or released flying-foxes have had their fates entered?	All	Some	None	N/A
5. How many released flying-foxes have their exact release location details entered?	All	Some	None	N/A
6. How many flying-foxes transferred to or from another facility have a dated identification record and location of transfer?	All	Some	None	N/A
7. How many of the flying-foxes held in permanent care have written approval from NPWS?	All	Some	None	N/A

Tally responses for each column and display the score as a fraction

(remember to deduct any N/As from the total)

Convert to a percentage (%)

Notes:

Recommendations:

Section 3: Facility inspection

The purpose of this section is to assess the member's rehabilitation facility, including its housing, husbandry and care procedures. If the facility does not participate in the intensive care, intermediate care or pre-release of flying-foxes, then move to another section and place **N/A** in notes.

Member Name:	Signature:	Date:
Assessor Name:	Signature	Date:

Section 3a: Housing and Husbandry – General care

Code of Practice standards: 6 Care procedures; 6.2 Controlling disease transmission; 7.1 Food and water; 7.2 Hygiene 9. Suitability for release

Assessment question: Are flying-foxes at the premise managed according to the standard.

Prompts: Observe the flying-foxes and their enclosures and ask to view the husbandry plan if there is one. Ask the following questions and circle the appropriate response.

Target questions

Select one response for each question

1. How many flying-foxes have been examined by an experienced flying-fox rehabilitator or veterinarian?	All	None	>Half	<Half	N/A
2. How many flying-foxes suspected of carrying an infectious disease are in quarantine (i.e. an individual cage with no direct contact but within sight and sound of other flying-foxes)?	All	None	>Half	<Half	N/A
3. How many enclosures, including food and drink containers, bedding, pouches and weighing bags are clean and free of uneaten food, faeces, urine and spat?	All	None	>Half	<Half	N/A
4. How many bottles, teats and syringes used for feeding juvenile flying-foxes have been sterilised?	All	None	>Half	<Half	N/A
5. How many enclosures have fresh drinking water available for all flying-foxes (except dependent animals)?	All	None	>Half	<Half	N/A
6. How many enclosures have water containers positioned to avoid spillage and contamination?	All	None	>Half	<Half	N/A
7. How many adult flying-foxes have been offered food that consists of fruit that is available in the wild with a protein supplement?	All	None	>Half	<Half	N/A

Section 3a: Housing and Husbandry – General care

Code of Practice standards: 6 Care procedures; 6.2 Controlling disease transmission; 7.1 Food and water; 7.2 Hygiene 9. Suitability for release

Assessment question: Are flying-foxes at the premise managed according to the standard.

Prompts: Observe the flying-foxes and their enclosures and ask to view the husbandry plan if there is one. Ask the following questions and circle the appropriate response.

8. How many hand-reared flying-foxes are fed a milk formula appropriate for its stage of development?	All	None	>Half	<Half	N/A
9. How many flying-foxes are clean, i.e. free of faeces, urine or uneaten food?	All	None	>Half	<Half	N/A
10. How many flying-foxes are kept away from contact from domestic pets	All	None	>Half	<Half	N/A

Tally responses for each column and display the score as a fraction

(remember to deduct any N/As from the total)

Convert to a percentage (%)

Section 3b: Housing and Husbandry – Intensive care

Code of Practice standards: 8.2 Intensive care housing; 6.2 Monitoring

Assessment question: Are intensive care housing enclosures (ICEs) for flying-foxes constructed, positioned and maintained in accordance with the standard?

Prompts: Ask to see the intensive care enclosures and the husbandry plan. Only answer if flying-foxes are present.

Target questions

Select one response for each question

1. How many ICEs provide sufficient space for the flying-fox to maintain a normal posture, but not enough to fly?	All	None	>Half	<Half	N/A
2. How many portable ICEs are raised at least 0.7 metres (m) off the ground?	All	None	>Half	<Half	N/A
3. How many ICEs have floor dimensions at least 0.4 m long and 0.3 m wide?	All	None	>Half	<Half	N/A
4. How many ICEs provide a constant temperature appropriate for the age of the flying-fox and the nature of its injury or illness, e.g.: <ul style="list-style-type: none"> ○ a range of 25-27°C for an adult ○ 28°C for an orphan ○ 29-31°C for premature flying-foxes or those in very poor condition. 	All	None	>Half	<Half	N/A

Section 3b: Housing and Husbandry – Intensive care

Code of Practice standards: 8.2 Intensive care housing; 6.2 Monitoring

Assessment question: Are intensive care housing enclosures (ICEs) for flying-foxes constructed, positioned and maintained in accordance with the standard?

Prompts: Ask to see the intensive care enclosures and the husbandry plan. Only answer if flying-foxes are present.

5. How many ICEs use heat sources that are regulated by a thermostat?	All	None	>Half	<Half	N/A
6. How many portable ICEs are raised at least 0.7 m off the ground?	All	None	>Half	<Half	N/A
7. How many flying-foxes in intensive care have been monitored repeatedly during the day and weighed twice a week (ask to see evidence)?	All	None	>Half	<Half	N/A
8. How many orphaned dependent flying-foxes and juvenile flying-foxes were monitored according to the timeframes specified in standard 6.2.3 of the Code?	All	None	>Half	<Half	N/A

Tally responses for each column and display the score as a fraction

(remember to deduct any N/As from the total)

Convert to a percentage (%)

Notes: Enter **N/A** here if the person does not participate in intensive care or has no flying-foxes.

Recommendations:

Section 3c: Housing and Husbandry – Intermediate care

Code of Practice standards: 8.3 Intermediate care housing; 6.2 Monitoring

Assessment question: Are intermediate care housing (ITEs) enclosures for flying-foxes constructed, positioned and maintained in accordance with the standard?

Prompts: Ask to see the intermediate care enclosures and the husbandry plan. Only answer if flying-foxes are present.

Target questions	Select one response for each question				
1. How many intermediate care enclosures (ITEs) for flying-foxes have either of the following floor dimensions? <ul style="list-style-type: none"> ○ at least 2.4 metres (m) long by 2.4 m wide by 2.0 m high for outside enclosures for up to 10 individuals ○ at least 0.8 m long by 0.5 m wide by 0.8 m high for inside enclosures for up to 4 individuals 	All	None	>Half	<Half	N/A
2. How many portable ITEs are raised 0.7 m off the ground?	All	None	>Half	<Half	N/A
3. How many outside ITEs have a double-skinned roof with at least 10 cm between the layers?	All	None	>Half	<Half	N/A
4. How many outside ITEs contain vertical hanging foliage and equipment such as ropes, foam noodles and netting for the flying-fox to hold on to or climb if they fall to the ground?	All	None	>Half	<Half	N/A
5. How many ITEs have a light-dark cycle that replicates outside conditions? Such a cycle may be achieved by placing the animal in a well-lit room or in a sheltered area outside.	All	None	>Half	<Half	N/A
6. How many outside ITEs holding flying-foxes for >3 days have cage mates?	All	None	>Half	<Half	N/A
7. How many flying-foxes in intermediate care have been monitored at least once a day and weighed once a week (ask to see evidence)?	All	None	>Half	<Half	N/A

Tally responses for each column and display the score as a fraction

(remember to deduct any N/As from the total)

Convert to a percentage (%)

Notes: Enter **N/A** if the person does not participate in intermediate care or has no flying-foxes.

Recommendations:

Section 3d: Housing and Husbandry – Pre-release housing

Code of Practice standards: 8.4 Pre-release housing

Assessment question: Are pre-release care facilities (PREs) constructed, positioned and maintained in accordance with the standard?

Prompts: Ask to see the pre-release enclosures and husbandry plan. Only answer if flying-foxes are present.

Target questions

Select one response for each question

1. How many PREs are at least 8 metres long by 3 metres wide by 2 metres high.	All	None	>Half	<Half
2. How many PREs provide areas where flying-foxes can shelter from and gain exposure to outside weather?	All	None	>Half	<Half
3. How many PREs have a double-skinned roof with at least 10 cm between the layers to avoid predators attacking the bat's feet as they hang?	All	None	>Half	<Half
4. How many PREs contain netting or similar on the roof so they can hang, and bags or ropes to land on?	All	None	>Half	<Half

Tally responses for each column and display the score as a fraction

Convert to a percentage (%)

Notes: Enter **N/A** if the person does not have pre-release housing or has no flying-foxes.

Recommendations:

Section 3e: Pre-release assessment

Code of Practice standard: 9; Suitability for release

Assessment question: Have all flying-foxes deemed ready for release been assessed according to the standard

Prompt: Ask to see the flying-foxes that have been assessed as suitable for release. If none are ready for suitable for release enter N/A in the notes section.

1. Has the release suitability of the flying-fox been confirmed by a veterinarian or experienced flying-fox rehabilitator?	Yes	No	Some
2. Has the member correctly described why the animal is physically ready for release (see standard 9.1.1 of the Code)?	Yes	No	Some
3. Has the member correctly described why the animal is behaviourally ready for release (see standard 9.1.2 of the Code)?	Yes	No	Some
4. Have all hand-reared grey-headed and black flying-foxes ready for release have a forearm measurement of 140 mm and weigh 400 grams?	Yes	No	Some

Tally responses for each column and display the score as a fraction

Convert to a percentage (%)

Notes: Enter **N/A** here if no flying-foxes are ready for release

Recommendations:

Section 4: Field observation

This section is a practical assessment of the application of the rescue, transport and release standards in the code. It is best conducted in the field through observation, although parts such as personal protective equipment (PPE), rescue equipment and release considerations maybe completed as part of the facility inspection and record management sections.

Member Name:	Signature:	Date:
Assessor Name:	Signature	Date:

Section 4a: Rescue preparation

Code of Practice standard: 3.1 Conducting a flying-fox rescue

Assessment question: Did the member prepare for the rescue in accordance with the standard?

Prompts: Observe how the member prepares for a rescue.

Target questions

Select one response for each question

Target questions	Yes	No	Some	N/A
1. Were the risks to the flying-fox from environmental hazards and capture assessed prior to the rescue attempt?	Yes	No	Some	N/A
2. Were the risks to the rescuer, other volunteers and members of the public assessed prior to the rescue attempt?	Yes	No	Some	N/A
3. Did the rescuer possess the appropriate PPE?	Yes	No	Some	N/A

If a rescue is required in a flying-fox camp

N/A

If the rescue is not in a camp circle **N/A** and do not complete question 4.

4. Before the rescue was attempted, did the rescuer consider any of the following:	Yes	No	Some	N/A
<ul style="list-style-type: none"> ○ the impact of the rescue on the entire camp ○ monitoring a suspected abandoned flying-fox pup for 24 hours when it is still roosting in the canopy ○ the welfare of the injured flying-fox ○ assessment by an experienced flying-fox rehabilitator for heat stress events 				

Tally responses for each column and display the score as a fraction

(remember to deduct any N/As from the total)

Convert to a percentage (%)

Section 4a: Rescue preparation

Code of Practice standard: 3.1 Conducting a flying-fox rescue

Assessment question: Did the member prepare for the rescue in accordance with the standard?

Prompts: Observe how the member prepares for a rescue.

Notes:

Recommendations:

Section 4b: Rescue conduct

Code of Practice standard: 3.1 Conducting a flying-fox rescue

Assessment question: Did the member undertake the rescue in accordance with the standard?

Prompts: Observe the method and conduct of the flying-fox physical rescue.

Target questions **Select one response for each question**

1. Did the rescuer use the correct rescue equipment?	Yes	No	N/A
2. Did the rescuer employ the correct rescue method?	Yes	No	N/A
3. Did the rescuer take steps to limit the animal's exposure to additional stressors such as onlookers, loud noises, other animals and extremes of temperature?	Yes	No	N/A
4. Did the rescuer separate all dependent flying-foxes that were attached to their dead mothers?	Yes	No	N/A
5. Did the rescuer stabilise any flying-fox with a fracture using extra padding and support before transport?	Yes	No	N/A

Tally responses for each column and display the score as a fraction

(remember to deduct any N/As from the total)

Convert to a percentage (%)

Notes:

Recommendations:

Section 4c: Transport

Code of Practice standard: 4.1 Transport

Assessment question: Was the flying-fox transported in accordance with the standard?

Prompts: Observe the method and conduct of the flying-foxes physical transport.

Target questions

Select one response for each question

1. Was the transport container tall enough for the flying -fox to hang its feet without touching its head on the floor?	Yes	No	N/A
2. If the flying-fox is unable to hang by its feet or is unable to be hung, has it been placed in a sling or a position where its feet are higher than its head and the feet have something to grasp?	Yes	No	N/A
3. Have orphaned dependent flying-foxes been placed on a covered rolled-up towel and positioned so its feet are higher than its head?			
4. Is the transport container designed, set up and secured to prevent injuries to the flying-fox e.g. are the sides of the container designed to prevent the flying-fox from poking its head or wings through?	Yes	No	N/A
5. Was the transport container kept at a temperature that is appropriate for the stage of development of the animal?	Yes	No	N/A
6. Was the transport container covered, but able to still allow air to circulate around the flying-fox?	Yes	No	N/A

Tally responses for each column and display the score as a fraction

(remember to deduct any N/As from the total)

Convert to a percentage (%)

Notes:

Recommendations:

Section 4d: Release

Code of Practice standard: 10.1 Timing of release; 10.2 release site selection and Release techniques

Assessment question: Is the animal being released according to the standard?

Prompts:

Target questions	Select one response for each question		
1. Is it the right time of day to release a flying-fox? Note the time of day will differ depending on whether it is a 'soft' or 'hard' release.	Yes	No	N/A
2. If the animal is a hand-reared flying-fox, are there flowering trees nearby?	Yes	No	N/A
3. Is the flying-fox to be released in the nearest suitable environment to the location it was found?	Yes	No	N/A
4. Are hand-reared flying-foxes being released with other flying-foxes and provided with post-release support (e.g. supplementary feeding)?	Yes	No	N/A

Tally responses for each column and display the score as a fraction

(remember to deduct any N/As from the total)

Convert to a percentage (%)

Notes:

Recommendations:

Assessment summary

There is no pass or fail associated with this assessment. Its purpose is to identify those standards in the code that can be improved upon. Specific recommendations for improvement can be provided below. A timeframe should be discussed and agreed with the group member to implement any recommendations.

Summarise the outcome of the assessment in the table below:

- circle Yes for each section assessed
- enter the total score as a fraction (i.e. X/Y) for answers with a Yes or All
- enter the percentage score (%) for answers with a Yes or All.

Assessed	Section	Grade score Yes/All	Grade score (%) Yes/All
Sections 1,2			
Yes	Work Health Safety and Training		
Yes	Record Keeping		
Section 3: Facility inspection			
Yes	Housing/Husbandry (General care)		
Yes	Housing/Husbandry (Intensive care housing)		
Yes	Housing/Husbandry (Intermediate care housing)		
Yes	Housing/Husbandry (Pre-release housing)		
Yes	Housing/Husbandry (Pre-release assessment)		
Section 4: Field Observation			
Yes	Rescue preparation		
Yes	Rescue conduct		
Yes	Transport		
Yes	Release		

Recommendations:

More information

- [Code of Practice](#)
- [Data report template](#)

Appendix 1: Animals currently on-site

This species summary sheet should be completed before conducting an assessment. It will help the assessor reconcile the species and animals currently on-site with what is listed on the record sheet. Assessors should ask the group member to confirm the taxonomic identification of each species.

Common Name(s) e.g. Grey-headed flying-fox	Number in rehabilitation	Number in permanent care
Total ()		

Calculate the total number of animals on-site by adding together the number of animals in rehabilitation plus the number of animals in permanent care.