Standard Operating Procedure

SC26-06 VOUCHERING VERTEBRATE FAUNA SPECIMENS

Animal welfare is the responsibility of all personnel involved in the care and use of animals for scientific purposes.

Personnel involved in an Animal Ethics Committee approved project should read and understand their obligations under the *Australian code for the care and use of animals for scientific purposes*.

Version 1.3

October 2026

GOVERNMENT OF WESTERN AUSTRALIA

Department of **Biodiversity, Conservation and Attractions**

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October 2026

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Approved by the DBCA Animal Ethics Committee: 

Dr Jacqui Richards

Chairperson, Animal Ethics Committee

Department of Biodiversity, Conservation and Attractions

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1 Acknowledgements

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2 Purpose

This Standard Operating Procedure (SOP) provides advice on how to voucher (prepare and preserve) fauna specimens, and how to transport and lodge specimens for formal identification with the Western Australian Museum (WAM).

Prior to undertaking any vouchering activities, **personnel must first determine whether a voucher is required and consult with WAM** or other relevant experts to confirm appropriate sampling strategies.

3 Scope

This SOP has been written specifically for scientific and education purposes, and endorsed by the Department of Biodiversity, Conservation and Attractions' (DBCA) Animal Ethics Committee (AEC). However, this SOP may also be appropriate for other situations.

This SOP applies to all fauna survey and monitoring activities involving vouchering of vertebrate fauna specimens undertaken across Western Australia by DBCA (hereafter department) personnel. It may also be used to guide fauna related activities undertaken by Natural Resource Management groups, consultants, researchers and other individuals or organisations. All department personnel involved in fauna research and management should be familiar with the content of this document.

This SOP complements the *Australian code of practice for the care and use of animals for scientific purposes* (The Code). The Code contains an introduction to the ethical use of animals in wildlife studies and should be referred to for all AEC approved projects. A copy of The Code may be viewed by visiting the National Health and Medical Research Council website (http://www.nhmrc.gov.au/).

4 Animal Welfare Considerations

To reduce the level of impact of vouchering fauna specimens on the welfare of animals, personnel must consider, address and plan for the range of welfare impacts that may be encountered. Strategies to reduce impacts should be identified during the planning stage to ensure that they can be readily implemented during vouchering, and to ensure that contingencies for managing welfare issues have been identified. Ensure that all handlers and volunteers involved in the project are aware of these steps, including available options to reduce impact and improve animal welfare, and the process to manage adverse events.

Department projects involving the vouchering of fauna specimens will require approval from the DBCA AEC. Key animal welfare considerations that should be considered when vouchering fauna specimens are listed below and are highlighted throughout the document.

4.1 Injury and unexpected deaths

If adverse events, including injury, unexpected deaths or unplanned requirement for euthanasia occur then it is essential to consider the possible causes and take action to prevent further issues. Adhering to the guidance in this SOP will assist to minimise the likelihood of adverse events. For projects approved by the DBCA AEC, adverse events must be reported in writing to the AEC Executive Officer as soon as possible after the event by completing an *Adverse Events Form*. Guidance on field

euthanasia procedures is described in the department SOP for *Euthanasia of Animals Under Field Conditions*. Where infectious disease may be suspected, refer to the department SOP for *Managing Disease Risk and Biosecurity in Wildlife Management* for further guidance.

4.2 Level of impact

The impact of vouchering fauna is high. Potential animal welfare impacts when vouchering fauna specimens include:

- Distress (caused by capture, handling, discomfort, social isolation, separation of mother and young).
- Trauma (injury to the animal during capture and restraint).
- Pain (if methods used do not induce rapid or instant death or loss of consciousness).

It is important to justify any impact on animals, especially those euthanased. All alternatives for collecting the necessary data should be considered before vouchering (see Section **Error! Reference source not found.**).

It should be noted that whilst these impacts are specifically associated with vouchering, an animal may also experience other impacts from associated procedures. Investigators must be aware that the effects of a series of stressors, such as trapping, handling, transportation, and euthanasia are cumulative.

5 Planning

Consultation with WAM personnel is imperative prior to vouchering in WA to ensure only species of interest are collected and to avoid unnecessary vouchering. Other institutions/experts may also be consulted, where appropriate, as there may be project or species-specific requirements for voucher specimens additional to those of the WAM.

WAM can provide guidance on how many specimens should be collected from a particular site over a particular time period.

Depending on the study area, guidance from WAM may be sought on target taxa or groups where specimen vouchers are required either because of poor scientific knowledge, taxonomic uncertainty, poor representation in the collections or through project design (species-specific projects).

WAM Contacts

A list of WAM curators is available at https://visit.museum.wa.gov.au/collections/terrestrial-zoology/curators-contacts for vouchering advice. Contacts for terrestrial vertebrates (as of October 2026) are:

Kenny Travouillon
Curator
Mammals and Birds
08 9212 3788
kenny.travouillon@museum.wa.gov.au

Paul Doughty
Curator
Reptiles and Frogs
08 9212 3826
paul.doughty@museum.wa.gov.au

5.1 Equipment

Suitable equipment must be available to prepare, store and transport specimens. This involves obtaining suitable preserving solutions and suitable storage containers (Section 8). Depending on which species are likely to be collected/vouchered, different equipment may need to be obtained.

6 Preparing and preserving specimens

Live animals vouchered as specimens are preferably euthanased using methods that do not damage the body, such as pentobarbitone injection. Such methods preserve potentially important skull morphology used in the identification of some mammals and reptiles, as well as age characteristics of birds. If animals are euthanased for welfare purposes, such as via blunt force trauma or decapitation, it may still be possible to obtain tissue samples. Refer to department SOP for *Euthanasia of Animals Under Field Conditions* and *Tissue Sample Collection and Storage for Genetic Purposes* for more information on euthanasia techniques and tissue sampling.

ANIMAL WELFARE: Administration of sodium pentobarbitone requires considerable training, appropriate animal restraint, and specific legal authorisations. Sodium pentobarbitone can only be kept by non-veterinary department personnel who have satisfied the applicable permit requirements of the WA Department of Health. In addition to obtaining the appropriate authorisations, non-veterinary personnel seeking to use this method must be trained in the correct dose rates and injection techniques by an experienced veterinarian and be supervised by qualified staff until deemed competent (Section 10).

6.1 Fresh specimens

Fresh specimens are vouchers that are collected alive and subsequently euthanased. This is the method primarily used by departmental staff. WAM should be consulted prior to sampling, as the appropriate method for euthanasia and preservation will be determined by how the specimen will be used. General methods are recommended in Table 1, noting that **fixing is typically performed by WAM staff** due to factors such as taxa and size-specific requirements, temperature and level of experience required to perform the procedure.

Table 1 Recommended methods of preservation.

Animal Group	Preservation Method
Mammals	Frozen or fixed in 10% buffered formalin solution* for sufficient time, appropriate to the size of the specimen, rinsed in water and transferred to 70% ethanol
Birds	Frozen
Reptiles	Frozen or fixed in 10% buffered formalin solution for sufficient time, appropriate to the size of the specimen, rinsed in water and transferred to 70% ethanol
Amphibians	Fixed in 5% buffered formalin solution for sufficient time, appropriate to the size of the specimen, rinsed in water and transferred to 70% ethanol. Do not freeze.

*Saturated (concentrated) formaldehyde is generally 37-40%. Dilution to obtain one litre is 100 ml of formaldehyde and 900 ml water-preferably distilled and buffered. This is correctly termed 10% formalin (because 100% formalin is 37% formaldehyde) and it is the same as 4% formaldehyde. If formalin solution is not available, 100% ethanol may also be used. Note that for most larger reptiles and all mammals, even when the body cavity is opened and flooded well with ethanol, there will still be decomposition of tissues if kept only in ethanol for a prolonged period. **Care should be taken when handling formalin solution, as it is toxic, corrosive and a known carcinogen. Formalin should only be used in a well-ventilated area and direct skin contact and inhalation should be avoided. Personnel should wear appropriate personal protective equipment (PPE), including nitrile gloves and eye protection (e.g., safety glasses or googles). Refer to the relevant Material Safety Data Sheet (MSDS).**

Medium to large species, and species with heavy muscle or fat (such as gecko tails) will need to be injected with formalin into these fatty/muscular areas. For larger specimens, it is also advisable to open the body cavity to flood with formalin, allowing it to penetrate the organs more effectively. Relying on injection alone may result in patches of decomposed tissue. If a liver tissue sample is taken, the existing incision can be used for this purpose. All specimens should be lightly pricked with scalpel or needle tip to allow better absorption of formalin solution into tissue.

For best practice in the preservation of reptiles and frogs, specimens must be laid out in preservation trays that allow the limbs and toes to be arranged naturally. This preservation allows the researcher to accurately examine the specimen in the laboratory.

Field number tags or data cards must be attached to each specimen. Be aware that hand-written paper tags will disintegrate in alcohol or formalin. Commercially produced field number tags are preferable and should be tied to the specimen with string.

Specimens to be frozen should be wrapped in newspaper or paper towel and double-bagged and sealed to prevent freezer burn and to contain leakage of fluids from the specimen. Data should be included inside the second bag with a description of the contents written on the outside of the bag (Section 7).

Please contact WAM prior to sampling specimens for preservation (fixing) to obtain advice.

6.2 Opportunistic specimens

Specimens may be obtained opportunistically throughout the course of field work, travel or recreational activities, when there is no prior intention to collect. The most commonly collected opportunistic specimens are those found dead on, or near, the road. Depending on the situation and the value of the opportunistic specimen, the observer may choose to collect the whole carcass and prepare it for freezing or immediate transport to WAM, or to obtain tissue samples only, if collection and preservation equipment is available. Supporting data must always be recorded to accompany the specimen or tissue (see Section 7.3).

Although opportunistic specimens may be readily available and can provide a wealth of information, supplementing the need for live collecting of specimens, this material is often of inferior quality. If the specimen is of inadequate quality, an observational record (including photographs is possible) of the specimen may still be valuable.

6.3 Tissue samples

Tissue sampling involves collecting a small sample of tissue and storing it in a suitable manner. The best quality tissue is often samples from the liver or muscle, and these are most often taken from vouchered specimens, minimising any external damage. Tissue sampling may also allow collection of

genetic information when the specimen would otherwise not be appropriate as a voucher specimen. For details on collecting and storing tissue samples refer to department SOPs for *Tissue Sample Collection and Storage for Genetic Purposes* and *Sampling Cetaceans Using Remote Biopsy System.*

6.4 Wet pitfall trap by-catch

Note: Wet pitfall trapping is NOT a suitable method for collecting vertebrates. It is for invertebrates only and is not a commonly used sampling method due to ethical concerns and the risk of by-catch (Cowan et al., 2017).

Vertebrate by-catch specimens resulting from wet pitfall invertebrate trapping are not suitable for tissue sample for genetic analyses as the liquids commonly used in wet pitfall trapping degrades the tissue. However, by-catch may still be valuable for providing evidence of range extensions or contributing to the collection of dry specimens, particularly for poorly represented taxa. Any by-catch should therefore be offered to the WAM for accession into the State Collection.

7 Labelling specimens and recording data

An individual specimen is the 'ultimate sacrifice'. Consequently, it is essential to provide as much data with the specimen as possible. Without data, specimens are of no scientific value. The following sections provide advice on how to label specimens and what information to include on specimen labels.

7.1 Labelling

Detailed and accurate documentation (labelling, maintaining readability and preventing label separation) of the specimens is essential (NHMRC, 2004). Different labelling methods are appropriate for distinct types of specimens (Table 2). Labels should always be written clearly with a pencil (4B or dark HB) or water/chemical resistant pen (e.g., India ink) on chemical resistant, waterproof paper, and securely fastened to the specimen or placed inside the specimen container. The data must physically accompany the specimen inside the container or cooler bag, when submitted to WAM. An electronic record of the collection information should also be provided to the WAM collections staff. Specimens received without data may be rejected.

Table 2 Data placement by method of specimen submission.

Method	Data Placement
Frozen	Data tag inside second bag containing bagged specimen and duplicated on outside of second bag.
Preserved	Individual field number tag attached securely to specimen; or data tag placed inside vial with specimen, with field number duplicated on outside of storage container. *Note: handwritten tags disintegrate in vials containing formalin or ethanol*.
Live Animal	Data tag attached securely to the outside of the container and replicated in notebook or datasheet. Live animals may eat or destroy paper tags included inside their container during transport.
Tissue	A small piece of paper with the field number written in pencil, placed inside the vial, and the number (replicated twice) and tissue type on the outside of the vial.
Observation/ Photo	Record on a datasheet or in a field notebook; duplicated by photocopy or scanning.

7.2 Field numbers

Field numbers are used by persons collecting specimens to identify the material before examination for accessioning. Each field number should be unique for each specimen and recorded or attached to the specimen. Alternatively, field numbers can be recorded on a data tag kept with the specimen, duplicated on a datasheet or in a field notebook. Field numbers may have a prefix reflecting the collector using their initials, a project or survey code and should be as concise as possible. They are used to associate the specimen with other survey information such as capture data, capture site information and project information. They are primarily for reference by the collector.

7.3 Essential data for specimens and observations

The more data provided, the better. The minimum requirement for all specimens is:

- Field number (a unique field label distinguishing the specimen from others).
- Date of collection (written as 20 JUNE 2022).
- Collector's/observer's name and a contact detail.
- Detailed location (latitude/longitude with general locality). Coordinates should be 4-5 decimal places.
- Habitat information.
- Capture/observation method.

There are several other valuable pieces of information that should be noted on the datasheet, such as time of day the specimen was collected/observed, habitat and environmental conditions.

The location should be presented as a written site description including the nearest named point (e.g., rail crossing 3.6 km N of Gingin); and as latitude and longitude(preferably in decimal format).

Identifications (even tentative) must be written as scientific (Latin) names. Common names are often problematic due to local colloquialisms and lack of consistency. For current nomenclature please refer to the Checklist of the Terrestrial Vertebrate Fauna of Western Australia | Western Australian Museum. At this site, you will also find specimen submission procedures and specimen data forms (https://visit.museum.wa.gov.au/collections/instructions-specimen-submissions-requests-identification).

The following are additional notes or instructions regarding data requirements that apply to specific collection or observation methods.

7.4 Live captured and euthanased specimens

If the animal is to be euthanased, it is important to weigh the animal immediately after death, as this measure will not be accurate in the laboratory once preserved.

Other morphological measures that should be recorded, depending on the taxa, are sex, snout-vent length, tail length, measures of the manus/pes/forearm/wing chord, ear length and breeding condition. All measurements are usually taken after death to reduce stress on the animal, and risk of escape. Weight and body measurements are best taken before preservation or freezing of the specimen as after they will be less accurate (affected by the preservation process).

Note and photograph (if possible) any breeding colours or unusual markings that may be lost through preservation in formalin and ethanol. Soft part (feet, gape and eye) colours in birds often change with death.

7.5 'Tissue only' specimens

A 'tissue only' specimen has no reference voucher if the identification of the specimen becomes questionable. Therefore, it is important to obtain the greatest amount of data from the source of the tissue sample. In addition to locality and morphological data, tissue sample data should include:

- Type of tissue taken; and
- Specimen condition (e.g., released, dead on road, rotting/fresh).

A digital photograph of the specimen and any tags/microchip numbers is preferable so that identification can be confirmed.

7.6 Observational records

Observational records usually record an event or behaviour of one or more species at a particular time and location. Observational records usually contain greater detail than standard records and have an emphasis on behaviour. The time, date and location (including habitat) are critical.

Observations can be used to record the presence of a species (e.g., bird hollow), behaviour such as breeding, or an event such as a stranding or migration. Observational records may also include static records such as nests, eggs, footprints/tracks, diggings, scats, hair, skin slough and skeletal debris.

7.7 Digital photographs

Digital photographs can be an excellent tool for quick identification. Considerations when taking specimen photos include:

- Take photo against a contrasting background. Dark blue, red or green enhance colours of the subject, whereas a white background often darkens the subject.
- Photograph against a scale such as a ruler, lens cap or pen.
- Include field number or data in photo area to match photograph to specimen.
- Ensure the subject is in focus.
- Natural light is preferable.
- Take a series of photos:
    - overall dorsal and ventral (i.e., top and bottom), including tail.
    - close up of head.
    - close up of any key identifying characteristics (e.g., feet of mammals and geckos).
    - close up of any unusual characteristics (e.g., moult in birds).
    - habitat the specimen was captured in.

8 Transporting specimens

Specimens must be stored and transported back to the laboratory with care to ensure they remain in good condition. All specimens freighted to WAM should be marked: 'Scientific specimens – Handle with care'. Please state which department and personnel the package is to be delivered to and advise WAM staff when you are sending specimens so they can expect delivery. Specimens should not be sent until a WAM Staff member confirms they are able to receive the package. WAM staff contact details are provided in Section 5.

8.1 Transport of live animals

When transporting live animals directly to WAM for vouchering, animals must be kept in secure holding cages or appropriate containers (refer to department SOP for *Transport and Temporary Holding of Wildlife*). Personnel must ensure that all animals are maintained in appropriate ambient conditions, have adequate food and water and are kept in a quiet, low stress environment until they are delivered to WAM. Personnel must also ensure all relevant licences and approvals are in place to transport live animals.

8.2 Transporting preserved specimens

8.2.1 Packaging specimens

Glass or plastic containers are commonly used for liquid storage of preserved specimens. Containers must be securely sealed to prevent leakage of liquid or fumes and packaged with sufficient absorbent material (e.g., paper towel, absorbent pads/mats such as those found in spill kits or unused cleaning cloths like chux wipes) to contain the volume of liquid if spilt. Do not use metal containers that can corrode and stain specimens. Glass or plastic containers should be transported inside a larger container with cushioning material such as bubble wrap or foam packaging peanuts or in an appropriate container where they may be stored upright. Frozen specimens should be packed in a waterproof container with ice to prevent defrosting, and absorbent material to prevent any leaks. Vermiculite should not be used as it is a health hazard. Packages should be triple sealed to prevent leakage and should be labelled appropriately. To protect sample tubes during transit they can be wrapped in bubble wrap or packed with foam packaging peanuts.

The container should be as small as possible, but it should be large enough to allow extraction of the specimen without damaging it. Lightweight plastic bags (e.g., Ziplock or freezer bags) or small vials can be used to hold smaller or delicate species if stored in a container with multiple specimens. Holes must be punched in the bag or vial lid to allow ethanol transfer. The preservative should fill the entire container, leaving no air pocket, because agitation of the container can result in damage to the specimen (RIC, 1999).

8.2.2 Shipping by road and air

Liquid nitrogen, formalin and preservative solutions with greater than 70% ethanol content are classified as dangerous goods and therefore have restrictions on how they can be transported. See Australian Dangerous Goods Code for more information on dangerous goods. Australia Post can ship some dangerous goods within Australia, but only if they are ‘exempt’. Check with Australia Post whether your item is an exempt item and consult with WAM (or other receiving museum). **Formalin cannot be shipped by Australia Post**.

Under International Air Travel Association (IATA) Special Provision A180, small volumes of ethanol can be sent via Australia Post. Samples stored in DMSO buffer, tissue preservation buffer solution with less than 70% ethanol or less than 30 ml of total volume of ethanol can be transported via Parcel Post providing that they are leak proof and packaged as described above.

For samples stored in liquid nitrogen, check with Australia Post whether your item can be exempt for dangerous goods. If not, seek alternative posting companies that are equipped with handling hazardous samples. Alternatively, preserved specimens can be drained of ethanol or formalin before

shipping by air. The specimen should be wrapped in a dampened, absorbent towel, placed in a sealed, airtight bag, and double bagged with absorbent material in the outer packaging. The damp towel will prevent the specimen from drying out during transport. Specimens packaged this way may be sent by air express by courier and must be transferred back to preservative immediately on receipt.

Dry preserved specimens, including skulls, skeletons and skins may be sent using Australia Post. The specimen should be individually wrapped in cottonwool or bubble wrap, with plenty of cushioning material inside the box.

9 Lodging and identifying specimens

9.1 Lodgement of specimens

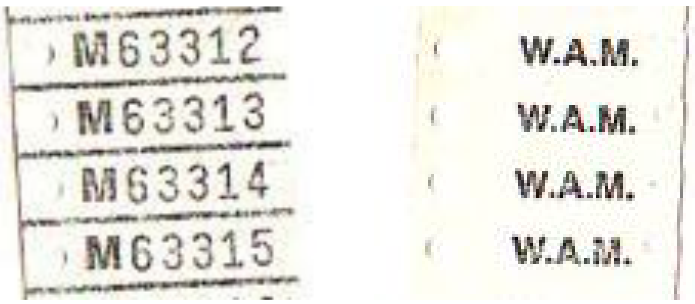
Specimens and observations should be forwarded to WAM as soon as possible. The longer the delay in accessioning, the higher the probability of loss of valuable information and loss of, or damage to, the specimen.

WAM staff should be contacted well in advance before any specimen lodgement. WAM staff are often not available in the office to accept specimens, so meeting times must be pre-arranged. Specimens should be submitted during normal business hours (9 am – 3 pm, Monday to Friday). Live animals must not be submitted on a Friday after 12 pm as there may be insufficient time to process them under ethical guidelines.

Live animals collected for WAM must be lodged for processing as soon as possible.

Note: specimens will not be accepted without associated collection data, nor will live animals be accepted if they have been transported in unsuitable containers or conditions.

Once accepted into the WAM collection, each specimen or group of specimens (e.g., one clutch of eggs, or a mother and pouch young) is given a unique registration number (Figure 4).



(a) *(b)*

Figure 4: Examples of WAM Mammal Registration number tags: front (a) and back (b)

Visit the WAM's Terrestrial Zoology webpage for more information: [Terrestrial Zoology Collections | Western Australian Museum]

9.2 Specimen identification

WAM provides a specimen identification service. Specimens that are 'hard to identify' require a detailed examination to confirm their identity and this involves specialist identification skills. A fee for this service is applicable to cover the time and resources required to maintain the service. Charges

do not apply to specimens donated by the general public. Contact WAM for further information on fees.

10 Competencies

A person who is competent has the knowledge, skills, and experiences that allow them to capture and handle animals successfully, and appropriately manage adverse events as required. Department personnel, and other external parties covered by the department's Animal Ethics Committee (AEC), undertaking fauna-related activities require approval from the AEC and will need to satisfy the competency requirements (Table 3). Other groups, organisations or individuals using this SOP to guide their fauna monitoring activities are encouraged to also meet these competency requirements and animal welfare legislative obligations.

The sampling design details, such as intensity and scope of the study undertaken, will determine the level of competency required. Table 4 provides advice for standard monitoring only.

Table 3 Competency requirements for Animal Handlers of projects involving vouchering of fauna specimens.

Competency category	Competency requirement	Competency assessment
Knowledge	Broad understanding of the framework governing the use of animals in research and environmental studies in Western Australia	Training (e.g., DBCA Fauna Management Course or equivalent training). In applications, provide details on the course provider, course name and year.
	Understanding of appropriate chemical use, storage and disposal (e.g., formalin)	Personnel should be familiar with the uses, dangers and first aid treatment for chemicals used for specimen collection and storage. This knowledge can be gained through consulting chemical information sheets, MSDS and other literature. Personnel should also be familiar with good laboratory practices to ensure safety and minimise contamination of samples or chemicals.
	Understanding species biology and ecology	Personnel should be able to correctly identify the likely species to be encountered at the site(s) studied and understand the species' biology and ecology. This knowledge may be gained through sufficient field experience and consultation of field guides and other literature.

	Understanding environmental conditions	Personnel should be aware of the environmental and seasonal conditions that may be expected on the project and understand location-specific animal welfare considerations. In applications, provide details of time spent undertaking similar work in similar locations.
Animal handling and tagging skills/experience required	Experience handling target species	Personnel should be experienced at hand restraint of species sampled. This experience is best obtained under supervision of more experienced personnel. In applications, provide details on the longevity, frequency and recency of experience.
	Experience in sodium pentobarbitone use, storage and disposal Demonstrated ability to calculate and administer appropriate dose	Personnel require training and written endorsement of competency in specified procedures by a veterinarian. Personnel must successfully demonstrate the specified technique, including dose calculation, for the specified taxon to the satisfaction of a person experienced in the technique.
	Experience in collecting tissue for DNA analysis	Personnel should be familiar with the animal welfare principles of tissue sampling for DNA analysis. Personnel should be familiar with how to operate tissue sampling equipment. This experience is best obtained under supervision of more experienced personnel.
	Experience managing disease risk in wildlife management	Personnel should be familiar with hygiene procedures. This knowledge may be gained through sufficient field experience and consultation of literature.

In conjunction with possessing the required understanding and knowledge of fauna vouchering techniques and animal welfare requirements, a guide to the experience and skill requirements for an animal handler to be considered competent to voucher fauna is as follows (noting that some personnel with experience may still require initial supervision in unfamiliar locations or with species that they have not encountered previously):

- Recency of vouchering experience within the past 10 years.
- Minimum two individuals of similar species vouchered.

11 Approvals

In Western Australia any person using animals for scientific purposes must also be covered by a licence issued under the *Animal Welfare Act 2002,* which is administered by the Department of

Primary Industries and Regional Development. Projects involving wildlife may require a licence/authorisation under the *Biodiversity Conservation Act 2016* (examples below).

- Fauna taking (scientific or other purposes) licence (Reg 25)
- Fauna taking (biological assessment) licence (Reg 27)
- Fauna taking (relocation) licence (Reg 28)
- Section 40 Ministerial Authorisation to take or disturb threatened species.

Personnel should consult the department's Wildlife Licensing Section for further guidance and information. It is your responsibility to ensure you comply with the requirements of all applicable legislation.

12 Occupational Health and Safety

The following departmental SOPs are relevant to occupational health and safety:

- SOP *Managing Disease Risk and Biosecurity in Wildlife Management*
- SOP *Hand Restraint of Wildlife*

Departmental personnel, contractors and volunteers have duties and responsibilities under the *Occupational Safety and Health Act 1984* and Occupational Safety and Health Regulations 1996 to ensure the health and safety of all involved. Fieldwork is to be undertaken in line with the department's corporate guidelines, policies and standard operating procedures, including but not limited to, risk management and job safety analyses. Further information can be found at https://dbca.sharepoint.com/Divisions/corporate/people-services/HS/SitePages/SOPs.aspx

If department personnel or volunteers are injured, please refer to the departmental Employee Relations and Safety Section's 'Reporting Hazards, Near-misses and Incidents' intranet page, which can be found at

https://dbca.sharepoint.com/Divisions/corporate/people-services/HS/SitePages/Reporting-Hazards,-Near-Misses-and-Incidents.aspx.

13 Further Reading

The following SOPs have been mentioned in this advice, and it is recommended that they are consulted when proposing vouchering of vertebrate fauna specimens:

- Department SOP *Animal Handling and Restraint using Soft Containment*
- Department SOP *Tissue Sample Collection and Storage for Genetic Purposes*
- Department SOP *Sampling Cetaceans Using Remote Biopsy System*
- Department SOP *Permanent Marking of Mammals using Ear Notching*
- Department SOP *Permanent Marking of Reptiles by Scale Marking*
- Department SOP *Transport and Temporary Holding of Wildlife*
- Department SOP *Managing Disease Risk and Biosecurity in Wildlife Management*

- Department SOP *First Aid for Animals*
- Department SOP *Short-term Joey Intervention Procedures*
- Department SOP *Euthanasia of Animals Under Field Conditions*

For further advice refer also to:

National Health and Medical Research Council (2013) *Australian code for the care and use of animals for scientific purposes*, 8th edition. Canberra: National Health and Medical Research Council. Available from: http://www.nhmrc.gov.au

Western Australian Museum (2025) *Checklist of the Terrestrial Vertebrate Fauna of Western Australia*. Available from: http://museum.wa.gov.au/research/departments/terrestrial-zoology/checklist-terrestrial-vertebrate-fauna-western-australia

14 References

Cowan, M., Mead-Hunter, R., Ho, K., Guthrie, N., Mullins, B., Quinlan, K., Ottewell, K., Oldfield, S., Harris, D., & Whitehead, T. (2017). Development of ethically acceptable techniques for invertebrate wet-pit trapping: A report to the Department of Parks and Wildlife's Animal Ethics Committee. Department of Parks and Wildlife, Western Australia.

National Health and Medical Research Council (2013) Australian code for the care and use of animals for scientific purposes, 8th edition. Canberra: National Health and Medical Research Council. http://www.nhmrc.gov.au

RIC (1999). Voucher Specimen Collection, Preparation, Identification and Storage Protocol: Animals. Standards for Components of British Columbia's Biodiversity No. 4a. Resource Inventory Committee, Ministry of Environment, Lands and Parks, Canada.

15 Glossary of Terms

Accessioning: The formal process of recording an object in a museum's records as part of the museum's permanent collection.

Animal handler: A person listed on an application to the department's Animal Ethics Committee that will be responsible for handling animals during the project.

Chief Investigator: A person listed on an application to the department's Animal Ethics Committee that will be responsible for all aspects of the project; this is generally the proponent of the project.

Collecting: Obtaining a representative specimen or series of representative specimens for examination.

Observation: A documented record of a species associated with a geographic location, date and time; may be accompanied by photographs, video, audio recording or tissue sample.

Specimen: A whole animal or a part thereof but can also comprise of photographs and audio and video recordings.

Tissue only voucher: An observational record with associated preserved DNA material in the form of a tissue sample.

Tissue sample: A sample of tissue taken from a live or deceased animal that includes ear clip/notch, toe clip, tail clip, skin, skin scrape (cetaceans), muscle, liver, heart, blood, hair, feather, egg shell, scale, faecal sample, egg or semen.

Voucher: A representative specimen or representative specimens of a defined taxon, variant of known taxon or an unknown taxon. A voucher may be in whole or part of an animal and may have been euthanased (after live capture) or deceased (found dead).

Vouchering: The process by which a voucher is collected and retained through preservation with a view to provide a specimen for later reference or examination. Vouchering permits independent verification of results and allows further study.