

ANIMAL USE FOR SCIENTIFIC PURPOSES – ANNUAL REPORTING INSTRUCTIONS

Annual reporting of animal use statistics is required of licensed institutions under section 35 of the *Animal Welfare Act 1993*.

Reporting period

The reporting period is the calendar year (1st January to 31st December).

Report deadline

The report must be forwarded to the Inspector of Animal Research by the 31st May of the following year.

Animals to be reported

All non-human vertebrate animals that are alive or that are killed for research purposes must be reported. This includes fish and (as of the 1st January 2009) cephalopods. While there is no obligation to report crustaceans they may be included. The following minimum ages/life stages that must be reported are in accordance with those historically used for the National Statistics of Animal Use for Scientific Purposes:

- Mammals - From half-gestation onwards;
- Birds - From half-incubation onwards;
- Reptiles - From half-incubation or from half-gestation for viviparous species;
- Amphibians – Juveniles that can independently feed or from half-gestation for viviparous species;
- Fish and cephalopods - Juveniles that can independently feed or from half-gestation for viviparous species.

Note that while certain juvenile forms are not required to be reported, they still require Animal Ethics Committee approval to be used.

Reporting format

The report is in two parts.

Part 1

A text summary of the animal research activities of the institution during the calendar year as it relates to research conducted in Tasmania. The following aspects must be addressed as a minimum:

- Any changes in research area in terms of animal type, purpose and/or procedure, and the reasons for the change/s.
- Any systemic changes in the administration of animal research projects (eg the creation of additional Animal Ethics Committees for specific areas or new animal house facilities which may impact on future animal use or welfare of projects conducted in Tasmania).
- Any specific issues or strategies that impacted positively on research conducted in Tasmania (eg monitoring techniques).
- Was an external review of the operation of the institution and its AEC conducted as per Appendix 1 of the Australian code for the care and use of animals in research and teaching, 8th Edition, 2013?
- For interstate institutions, please include a copy of the institution's licence or equivalent from your jurisdiction for the reporting period if licensed in Tasmania for more than 12 months.

Part 2

The second part of the report relates to the number of animals used for various purposes and undergoing various procedures for each project. An Excel spreadsheet is supplied for this part of the report. Definitions of reuse, purposes and procedures are those used for the National Statistics of Animal Use for Scientific Purposes and are summarised below to help you record data as accurately as possible.

When you open the spreadsheet you will see a number of fields across the page. Fill them in as appropriate. Do not leave any blank rows e.g. some projects may involve having more than one purpose in which animals are used. In such cases, you need to re-enter the same Project ID and Title in each row and then provide the appropriate information for each purpose or procedure.

Examples of procedures will appear in the 'Procedure examples' column when you select a procedure.

Explanation of fields

Animal categories - within each animal category there are several types. Sub-types may also be included where it is considered they are of particular interest to the State. The available categories are:

- Amphibians
- Aquatic animals (non-mammalian)
- Birds
- Domestic mammals (including livestock species)
- Exotic feral mammals
- Exotic zoo animals
- Native mammals (including marine mammals)

Primates

Reptiles

Purpose of Project –categorises the reason/s for the study.

- **Understanding Biology** projects aim to increase the basic understanding of the structure, function and behaviour of animals, including humans, and processes involved in physiology, biochemistry and pathology. Examples include comparative anatomy studies, animal physiology, adaptations of wild animals, wildlife survival studies.
- **Health and Welfare** projects aim to produce improvements in the health and welfare of animals, including humans. Examples include cancer research, drug therapy, residue and toxin testing, vaccine development.
- **Management or Production** projects aim to produce improvements in domestic or captive animal management or production. Examples include effect of nutrition supplements, evaluating husbandry techniques, animal production trials.
- **Education** projects are carried out for the achievement of educational objectives. Examples include classroom studies on animal behaviour or physiology.
- **Environmental Study** projects aim to increase the understanding of the animal's environment or its role in it, or aim to manage wild or feral populations. These will include studies to determine population levels and diversity.

Procedures used – broadly describes the impact of the procedure on the welfare of the animals. Where several procedures may have been applied on all animals in the project, only the one with the highest impact should be recorded. Where multiple procedures have been used but applied to different animals within the project the procedures are recorded independently to avoid a double count.

The following procedures are reported on:

- **Camera Trapping Only: (New category – previously included in Observation involving minor interference)** studies exclusively using continuous or motion-triggered photographic recording of animals via fixed cameras with or without lures/baits in the aquatic or terrestrial environment.
- **Observation Involving Minor Interference:** studies in which the normal activities of animals are impacted on in a minor way. Does not apply to animals that were killed for a scientific purpose (See 'Animal unconscious no recovery' below).

Examples:

Wildlife studies involving repeated spotlighting or intrusion into groups of animals or nursing animals.

Feeding trial, such as Digestible Energy determination of feed in a balanced diet.

Behavioural study with minor environmental manipulation.

Teaching of normal, non-invasive husbandry such as handling, grooming, etc.

Production of products, such as hormones or drugs, in milk or eggs from genetically modified animals that are subject to normal husbandry procedures only.

Observation on board commercial fishing vessels engaged in commercial fishing as their primary purpose.

- **Minor conscious procedure:** animal is subjected to handling and minor procedures that would normally not require anaesthesia or analgesia. Any pain is minor and analgesia usually unnecessary, although some distress may occur as a result of trapping or handling.

Examples:

Tail tipping and toe clipping for identification of new line GM animals.

Injections, blood sampling in conscious animal.

Minor dietary or environmental deprivation or manipulation, such as feeding nutrient-deficient diets for short periods.

Moderate impact husbandry procedures eg stomach tubing, branding, disbudding, and shearing of livestock.

Trapping (including nets but not trawling*) and release as used in species impact studies.

Trapping (including nets but not trawling*) and humane killing for collection of specimens.

*Trawling clarification – see 'Animal unconscious not recovery' below.

- **Minor operative procedure with recovery:** animal is rendered unconscious, with as little pain or distress as possible. A minor procedure such as cannulation or skin biopsy is carried out and the animal allowed to recover. Depending on the procedure, pain may be minor or moderate and post-operative analgesia may be appropriate.

Field capture using chemical restraint methods is also included here.

Examples:

Biopsies under anaesthesia or sedation.

Cannulations under anaesthesia or sedation.

Sedation/anaesthesia for relocation, examination or injections/blood sampling.

Insertion of PIT tags via cannular.

- **Major surgery with Recovery:** generally the animal is rendered unconscious, with as little pain or distress as possible. A major procedure such as abdominal or orthopaedic surgery is carried out and the animal allowed to recover. Post operative pain is usually considerable and at a level requiring analgesia.

Examples:

Orthopaedic surgery.

Abdominal or thoracic surgery.

Transplant surgery.

Mulesing, surgical castration with or without anaesthesia.

- **Minor physiological challenge:** animal remains conscious for some or all of the procedure. There is some interference with the animal's physiological or psychological processes. The challenge may cause only a small degree of pain/distress or any pain/distress is quickly and effectively alleviated.

Examples:

Minor infection, minor or moderate phenotypic modification, early oncogenesis.

Arthritis studies with pain alleviation.

Prolonged deficient diets, induction of metabolic disease.

Polyclonal antibody production.

Antiserum production.

- **Major physiological challenge:** animal remains conscious for some or all of the procedure. There is obvious interference with the animal's physiological or psychological processes. The challenge causes a moderate or large degree of pain/distress which is not quickly or effectively alleviated.

Examples:

Major infection, major phenotypic modification, oncogenesis without pain alleviation.
Arthritis studies with no concurrent pain alleviation, uncontrolled metabolic disease.
Isolation or environmental deprivation for extended periods.
Monoclonal antibody raising in mice.

- **Animal unconscious without recovery:** the animal is rendered unconscious under controlled circumstances with as little pain or distress as possible. Any pain is minor and brief and does not require analgesia. Procedures are carried out on the unconscious animal that is then killed without regaining consciousness.

Examples:

Laboratory animals killed humanely for dissection, biochemical analysis.
Teaching surgical techniques on live, anaesthetised animals that are not allowed to recover following the procedure.
Trawling using established or novel techniques or the use of benthic sleds where the activity would not proceed except for a teaching or research purpose and the capture method is likely to render animals dead or incapacitated. Does not include the observation of normal commercial fishing practices where the activity would proceed anyway whether there was a scientific purpose involved or not as a secondary consideration.

- **Death as an end point:** the aim of the experiment requires the animal to die unassisted ie not euthanased, as lethality is a critical measure of the experimental treatment.

Examples:

Trials of novel vertebrate pest control strategies using carcass counts (not surveys of established control strategies to monitor relative efficacy)
Toxicological experiments (eg ascertaining LD50s)
Assessing the relative resistance to the effects of infections if euthanasia cannot be provided at any stage to achieve the aim of the experiment.

Some hints on completing the spreadsheet:

- **Project ID:** project number issued by the AEC.
- **Purpose:** click on the cell below and you will trigger a drop-down menu. Select the appropriate Purpose. Where a project has multiple purposes, if possible do not assign the same animals to multiple purposes, however it is recognised that the same animals may be used for several purposes within the same project. This should be noted in 'Comments'
- **Procedure:** click on the cell below and you will trigger a drop-down menu. Select the appropriate Procedure. Where several procedures may have been used for all animals in the project, the one with the severest impact should be recorded. Where multiple procedures have been used but applied to different animals within the project please record the procedures independently to avoid a double count. For example, if a subset of 25 seals were tagged without sedation last year but they were part of a group of 300 that underwent remote observation last year in the same project, record 25 seals against *Minor conscious procedure* and 275 against *Observation with minor interference*.

- **Procedure examples:** brief examples are provided per procedure to assist in the selection of the correct option.
- **Category:** this relates to the animal category (e.g. Aquatic Animals, Native Mammals etc). Click on the cell below and you will trigger a drop-down list. Select the appropriate animal category.
- **Type:** this relates to the type of animal in the category (e.g. fish or cephalopod under the category 'Aquatic animal'). Note cetaceans are listed under native mammals and cane toads are included in 'Amphibia'. Click on the cell below and you will trigger a drop-down list. Select the appropriate type of animal for that category. If the type of animal is not listed, then select the available 'Other' type and move on to the next column "Other Type".
- **Other Type:** insert in the free-text field the type of animal not covered in the Type column.
- **Comments:** this is a free-text field providing the opportunity for short clarifications of numbers if felt necessary. For instance, 90% of the animals reported in a project were from camera trap recordings and 10% reported were trapped in the same area and PITs inserted. As it is likely the camera 'trapped' animals were also tagged the highest impact procedure used is entered in 'Procedures' ie for this project that would be Minor operative procedure with recovery. However, a comment clarifying proportions of animals recorded via camera trapping should also be entered as it relates to relative impacts and the quality of overall numbers of animals reported for the project. This improves the clarity of the final report to the public.

Queries should be directed to:

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