

# **EAZA Standards for Welfare, Accommodation and Management of Animals in Zoos and Aquariums**



European Association of Zoos and Aquariums  
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## Introduction

These Standards are based on present knowledge and practice for the welfare, accommodation and management of animals cared for by zoos and aquariums. These Standards are to be implemented together with other EAZA Standards, Procedures, Statements, Guideline and Best Practice Documents, in addition to all related local, national and international legislation and agreements.

These Standards must be followed for any animal under the care and responsibility of EAZA Members.

## Glossary of terms:

1. Zoo shall refer to all establishments open to and administered for the public to promote nature conservation and to provide education, information and recreation through the presentation and conservation of wildlife. This definition shall include zoos, animal parks, safari parks, bird gardens, dolphinariums, aquariums and specialist collections such as butterfly houses as defined in article 2 of Council Directive 1999/22/EC of 29 March 1999.
2. Animals shall refer to all species of the animal kingdom including species of mammals, birds, reptiles, fish, amphibians and invertebrates.
3. Welfare shall refer to the physical, behavioural and social well-being of animals through the provision of appropriate conditions for the species involved, including but not necessarily limited to housing, environment, diet, veterinary care and social contact where applicable. The Five Domains Model of Welfare is the primary model accepted by EAZA for assessing welfare.
4. EAZA has adopted the WAZA Definition of Animal Welfare, which defines welfare as a state that is specific for every individual animal; it is how the animal experiences its own world and life through its association with pleasant experiences specific for that species such as vitality, affection, safety and excitement, or unpleasant experiences such as pain, hunger, fear, boredom, loneliness and frustration.
5. Many of these experiences can be generated through features of an animal's diet; environment; physical health and fitness (including injury and

disease); social environment (including interactions with humans); and its ability to fulfil the species specific and individual animal's behavioural motivations to have positive physical or social experiences. An animal's welfare state can be influenced both positively and negatively by all parameters of its living environment with animal care practices being only one of them. The ability to have species specific choices and individual control over their environment are very important contributing factors for positive animal welfare.

6. Enclosure means any accommodation provided for animals in zoos and aquariums.
7. Primary enclosure is the enclosure that the animal spends the majority of their time in. This can sometimes be indoor/night enclosures.
8. Non-primary enclosure is an enclosure that animals are kept in for the minority of their time. This can also include display exhibits if the animal is only on display during opening hours. This can also include temporary, display or transport holding if the animal is in this enclosure for a significant portion of the day.
9. Enclosure barrier means a barrier to contain an animal within an enclosure.
10. Stand-off barrier means a physical barrier set back from the outer edge of an enclosure barrier designed to prevent public access to the latter.
11. Collection – All animals under the direct care and/or responsibility of the zoo.
12. Free-ranging – Animals being part of the institution's collection and are allowed to roam freely within the perimeter boundaries of the zoo.
13. Hazardous animals means any representative of the groups or species listed in Annex 1 and any other animal which, because of its individual disposition, sexual cycle, maternal instincts, or for any other reason, whether by biting, scratching, butting, compression, injecting venom or by any other method, is likely to injure seriously or transmit disease to humans.
  - a. Dangerous carnivores means all members of the genera *Panthera*, *Acinonyx*, *Lynx* and *Neofelis*, the families Ursidae and Hyaenidae, *Canis lupus*, *Canis rufus* and *Lycaon pictus*.

## The Standards

**Preamble:** It is the primary requirement of an EAZA Member to provide scientifically based and welfare focused animal care accommodation and management. These Standards provide the framework for Members to confirm that they are meeting EAZA's expectations on animal care, welfare, safety, health, accommodation and management.

EAZA Members must follow all local, national and international legislation and agreements, but where EAZA's Standards are more stringent, the Member must comply with EAZA's requirements.

### Animal Care and Welfare

EAZA recognises The Five Domains Model (Mellor et al., 2020) as a globally accepted framework for evaluating animal welfare and encourages EAZA Members to use this model when developing and implementing their own welfare practices. EAZA Members are expected to promote positive animal welfare throughout all animal management practices.

The Five Domains model: The animal's experience and perception within each of the four physical domains will result in a subjective experience reflected in the fifth Mental Domain, which represents the animal's welfare state.

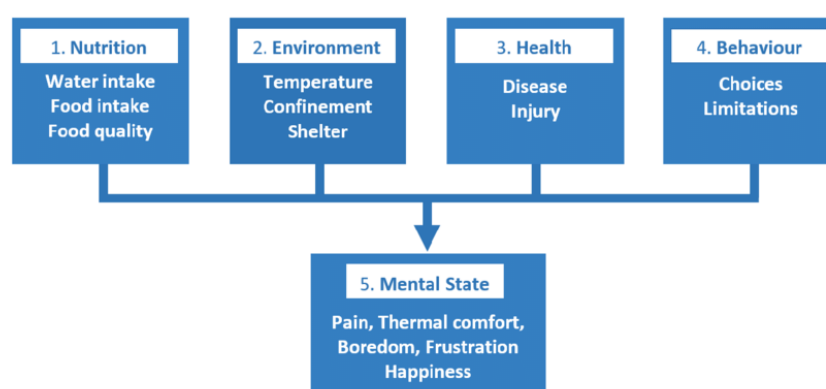
Domain 1: Nutrition

Domain 2: Physical Environment

Domain 3: Health

Domain 4: Behavioural Interactions

Domain 5: Mental



This document aims to provide a framework for EAZA Members to fulfil the physical/functional needs of an animal and to encourage positive welfare states within the fifth Mental Domain.

## Physical/Functional Domains

### 1. Physical Environment

#### 1.1 Enclosure Design

EAZA Members are expected to provide a high standard of accommodation for all animals in their care, both on- and off-exhibit, permanent and temporary. EAZA Best Practice Guidelines should be consulted when available and their guidance implemented wherever possible. Accommodation must consider the welfare of the individual, species specific needs, their space and social needs, appropriate management by staff and appropriate display to visitors. Important considerations that must be taken account of are:

1. All enclosures must provide a suitably complex living environment that considers the needs of the individual as well as species and group needs and encourages positive welfare states.
2. Design of enclosures must consider the management needs of the species. This includes:
  - a. Designing the enclosure such that it prevents animals from escaping;
  - b. Space available to allow for exhibition of the broadest repertoire of natural behaviours when reasonably possible;
  - c. Space available to allow for normal social groups;
    - i. to avoid animals within herds or groups being unduly dominated by other individuals;
    - ii. to avoid the risk of persistent and unresolved conflict between herd or group members or between different species in mixed exhibits;
    - iii. to ensure that the physical carrying capacity of the enclosure is not exceeded; and adequate for the number of individuals and variety of species kept.
  - c. Management of (social) conflict through separation areas, visual barriers, and other means, including accommodation for animals temporarily separated from a group;
  - d. Allow for animal choice of preferred enclosure space, whenever possible including indoor and outdoor free access, day and night
  - e. Catch up facilities or other appropriate methods for capture and restraint;
  - f. Facilities for the management of breeding animals, such as cubbing dens, nest sites or spawning substrates;
  - g. Introduction, quarantine and health care facilities that are

- adequate for the number of individuals and species in question;
  - h. Enclosures that allow a safe and appropriate cleaning regime to prevent an unacceptable build-up of parasites and other pathogens;
  - i. Safe and appropriate presentation of food and water;
  - j. Environmental and behavioural enrichment;
  - k. Provide opportunity for animals to choose to escape visitor gaze;
  - l. Animals should never be **coerced** for the benefit of visitors;
  - m. Animals in visibly adjoining enclosures must not interact in excessively stressful way.
3. Provision of facilities for good observation of the enclosure and its animals by staff and researchers.
  4. Provision of a high standard of public viewing experience, which demonstrates fully the animals and their behaviours, and which is consistent with the educational messages and strategies relevant to the species, the organization and its mission.

## 1.2 Comfort and Well-being

1. The environmental conditions and life support systems must be suitable for the comfort and well-being of the particular species of animal at all times, including in holding quarters and/or off-exhibit housing:
  - a. Special consideration to be given to the needs of pregnant and newborn animals;
  - b. Newly arrived animals to be fully habituated bearing in mind that this may be a gradual process;
  - c. Species specific ambient and gradient UV, lighting, heating and humidity control to establish appropriate gradients must be considered
  - d. Animals in outdoor enclosures to be provided with sufficient shelter from inclement weather or excessive sunlight where this is necessary for their comfort and well-being.

## 1.3 Enclosure Furniture

1. Design must take account of behavioural needs and behavioural management of the species, allowing adequate spatial separation between individuals or subgroups.
2. Provision of a rich environment of appropriate structures within the enclosure that enable the animals to express their behavioural repertoire as fully as possible and considering the use of three-dimensional space.
3. Animal enclosures to be furnished in accordance with the needs of the species in question, with such items as bedding material, perching,



vegetation, burrows, variety of substrates, climbing structures, appropriately designed nest boxes, refuges, hiding places and pools.

4. Design must also calculate the risk of harm (e.g., injuries, accidents) to animals before furniture and enrichment elements are placed.

#### 1.4 Mixed exhibits

Housing animals in mixed species exhibits can create a more **dynamic** display of animals for the visitors, potentially enrich the lives of species or individuals in the exhibit and can be a tool to provide space necessary for population management.

1. When exhibiting animals in a mixed species enclosure, EAZA Members should ensure that housing conditions are an acceptable standard for the positive welfare of all species exhibited and allows for full exhibition of natural behaviour when reasonably possible for all species exhibited. The potential positive and negative welfare implications for species combinations should be carefully assessed prior to introduction and monitored after the introduction. At the very least the following points must be part of the assessments:
  - a. Trauma risk;
  - b. Hierarchy and potential nutrition-related problems;
  - c. Transmissible infectious diseases;
2. Plans for appropriate provision for separation of animals must be in place.

#### 1.5 Free-ranging species

1. If animals are being kept free ranging in a zoo and part of the animal collection, there should be available, temporary holding for individuals to allow for management and veterinary needs. The animals should be accustomed to entering this enclosure for management purposes.

#### 1.6 Safeguarding against physical harm

1. Enclosures and barriers to enclosures to be maintained in a condition which presents no likelihood of harm to animals, and in particular:
  - a. any defect noted in an animal barrier or in any appliances or equipment within animal enclosures to be repaired or replaced without delay;
  - b. any defect likely to cause harm to animals to be rectified at once or, if this is not possible, the animals to be removed from the possibility of any contact with the source of the danger;
  - c. any vegetation capable of harming animals to be kept out of reach.
2. Having back-up systems (e.g. generator) in place in case of a power cut

(e.g. tropical species, supporting systems for aquariums/vivariums, hot wires for enclosures).

3. All plant and fixed equipment, including electrical apparatus, to be installed in such a way that it does not present a hazard to animals and its safe operation cannot be disrupted by them.
4. Trash or rubbish in animal enclosures to be removed quickly to avoid any possibility of harm to animals.
5. Trees within or near animal enclosures to be regularly inspected and lopped or felled as appropriate to reduce the risk of damage to enclosure barriers and animals being harmed by falling branches or using trees as a means to escape.
6. Smoking is prohibited in animal enclosures, in parts of buildings where animal enclosures are located and in areas where food is stored or prepared.
7. Animals to be handled only by, or under the supervision of, competent trained authorised staff.
8. Handling to be done with care, in a way which will avoid unnecessary discomfort, distress (temporary or chronic) or actual physical harm to animals.
9. Any direct physical contact between animals and the visiting public only to be under the control of zoo staff or trained volunteers and for periods of time and under conditions consistent with the animal's welfare and not leading to their discomfort.
10. When organising any type of events, EAZA Members must ensure these are organised and performed such that they keep the disturbance to the animals at a minimum. The effect of events on the welfare of individual animals should be assessed and changes implemented where necessary.

## 1.7 Hygiene

1. Proper standards of hygiene, both in respect of the personal hygiene of the staff and that of the animal enclosures and treatment rooms, to be maintained. Particular points of attention to be taken into account:
  - a. While cleaning products and procedures can ensure a hygienic environment, they can also impact on social and behavioural welfare (scent marking, deep litter floors, stress inducing shifting, etc.) A balance must be found between reducing the possibility of disease transmission and a suitable environment for the animals;
  - b. Water quality in aquatic enclosures must be tested regularly and adjusted as appropriate;
  - c. Non-toxic cleaning agents available and the means to apply them.

- d. Veterinary advice to be obtained and followed regarding all cleaning and sanitation requirements of enclosures or other areas following identification of an infectious disease in any animal;
- e. The drainage of all enclosures to be capable of removing efficiently all excess water;
- f. Any open drains, other than those carrying potable water, to be outside the areas to which animals have access;
- g. Tap water line contamination by animal waste must be prevented;
- h. Refuse material to be regularly removed and disposed of;
- i. A safe and effective programme for the control of pests and where necessary, predators, to be established and maintained throughout the institution;
- j. Animal care staff to be instructed to report immediately if they have contracted or are in contact with any infection which they have reason to believe could be transmitted to, and adversely affect the health of, any animal; and management then to take appropriate action;
- k. Animal care staff to be instructed to report in confidence any other disability which might affect their capacity to manage the animals in a safe and competent manner and management then to take appropriate action.

## 2. Physical Domain: Nutrition

- 1. A nutritionally balanced diet should be provided, i.e., one which includes the known target levels of essential and non-essential nutrients and energy values, based on current scientific evidence and best practice knowledge.
- 2. Specialist advice (animal nutritionist, veterinary or other specialist) should be obtained and followed concerning all aspects of nutrition, including those relating to preventative health.
- 3. Food and water supplied to animals should be of good quality, in both nutrition and hygiene.
  - a. The quality of feed/food should be checked before each meal.;
  - b. Routine water quality checks should be made;
  - c. Feed, food or water equipment (e.g. buckets, bins, troughs) should be cleaned regularly to maintain good hygiene and prevent quality decline;
- 4. Food and water provided for animals should be of the nutritive value and quantity required for individual animals within individual species. The condition, size, age, optimal weight and life stage (e.g. growth, reproduction, pregnancy, lactation) of individual animals should be

considered. Specialized diets may be needed for animals depending on these requirements (e.g., animals undergoing a course of veterinary treatment, or with ongoing medical conditions e.g. diabetes).

5. A nutritionally balanced diet must be provided in a suitable schedule (i.e., at an appropriate time of day based on the animals' natural feeding pattern (night phase of nocturnal animals, fasting days, seasonal changes) based on the natural behavioural and physiological needs of the species.
6. The food should be presented in form that stimulates natural feeding behaviours; encouraging, wherever reasonably possible, animals to obtain and manipulate food in a manner similar to that of their wild counterparts. The proportion of daily time spent feeding should aim to reflect that of wild counterparts.
7. The natural postures and behaviours of the animals, including social aspects, should be considered when offering food and water in enclosures. If feeding and drinking receptacles are used, they should be placed suitably so as to be accessible to every animal within a particular enclosure; multiple feed or water stations should be provided where necessary to reduce unwanted competition for resources. Feeding and drinking receptacles should and to allow for a physiologically suitable physiological posture during feed and water intake.
8. Unauthorized feeding by public is not permitted. Where public feeding is allowed, feeding must be supervised and the items fed must be quantified for as part of the animals' daily dietary ration (in terms of energy content and nutritive value). The animals' behaviour should be monitored around feeding events in front of visitors to assure these do not result in the development of undesirable behaviours e.g. anticipatory pacing etc.
9. When feeding live prey, local legislation must be followed; the welfare of live prey must be taken into consideration to ensure stress is minimised.
10. Welfare of feed animals produced on site should be considered and meet industry welfare standards
11. Supplies of food and water should be stored, prepared, and offered to the animals under hygienic conditions.
12. Measures should be taken to reduce pest access (e.g. secure feed storage systems, pest proof feeders).
13. Food preparation utensils (e.g. knives) should be stored and used safely, training should be provided in safe use where necessary.
14. Zoos should put effort into ensuring foods have a sustainable origin and sourcing follows EAZA Guidelines when applicable.

### **3. Physical Domain: Health**

#### **3.1 Routine observation of the animals**

1. The condition and health of all animals in the zoo to be checked daily by the persons in charge of their care
2. Any animals which are noted to be unduly stressed, sick or injured to receive immediate attention and, where necessary, treatment.

#### **3.2 General veterinary care**

1. The institution must have a suitable programme of preventative and curative veterinary care appropriate to the collections and supervised by suitably qualified and experienced veterinarians.
2. As a minimum, the programme should meet the approval requirements at least equivalent to those set out in the EU Animal Health Law. It should include routine health, morbidity and mortality monitoring, preventative treatment where required, disease contingency planning, zoonotic disease management, biosecurity etc.).
3. Veterinarians must keep up to date with trends and developments in the field of zoological medicine relevant to the species held (e.g. member of EAZWV, conference attendance, additional training, Continuing Education Credits etc.).
4. The institution must keep detailed health records for the animals in their care and use these to monitor health trends and inform treatment regimes. Use of ZIMS for Medical is highly encouraged.
5. Veterinary facilities and equipment must be adequate to meet the needs of the collection (including quarantine, isolation, anaesthesia, surgery, diagnostic sampling etc.).
6. Facilities and equipment for routine diagnostics and treatment should be available on site. It may be appropriate to transport living animals to external facilities for advanced diagnostics and treatment provided it can be done safely.
7. Adequate provision must be available to allow separation of sick, pregnant, injured or recovering animals.
8. All prescription medicines must be appropriately used, stored and disposed of, and their use recorded (in line with local regulations).
9. Where dangerous drugs are used, written protocols for their safe administration are required.
10. Sufficient staff must be trained in use of chemical capture techniques and how to manage accidental administration or overdose. Appropriate

antidotes must be accessible.

11. Capture equipment and facilities appropriate to the collection must be available and staff members trained in their use.
12. A safe and effective program for the control of pests and where necessary predators must be in place.
13. Necropsies must be performed on vertebrate animals that die in the institution, not only to establish cause of death but as part of the health monitoring program for the collection, as well as the (EEP) population.
14. If necropsies cannot be performed immediately or on site, carcasses must be appropriately stored and transported.
15. Carcasses and biological material must be disposed of hygienically and in line with national regulations.
16. Biosecurity protocols need to be in place and should consider safe disposal of animal waste and waste food, hygiene protocols, enclosure access, pest management, and the movement of animals, etc.

### 3.3 Mutilation

1. Mutilation of any animal for any purpose should be avoided.
  - a. It is not acceptable to mutilate an animal for cosmetic purposes nor to change its physical appearance, and Members must thus refrain from using this practice;
  - b. Mutilation to restrain animals (e.g. pinioning) is a practice that should be phased out and Members must put appropriate plans in place to do so in a timely fashion;
  - c. Marking of animals for identification reasons (e.g., ear tags, tattoos, elastomer dye injection) must always be carried out with the least harmful method available. Where mutilation is used for identification purposes it must always be carried out in accordance with approved veterinary protocols;
  - d. Castration for management purposes must always be carried out with the least harmful method available and in accordance with approved veterinary protocols.

### 3.4 Post-Mortem Facilities

1. Dead animals to be handled in a way which avoids the risk of any transmission of infection.
2. The cause of death for each animal dying in the collection needs to be established where reasonable and practicable to do so, including, in the majority of cases, the examination of the specimen by a veterinary surgeon, pathologist or practitioner with relevant experience and

training.

3. Institutions should communicate causes of death of programme animals to the EEP coordinator or studbook keeper and send the necropsy report.
4. Where facilities for conducting post-mortem examinations and the processing of samples resulting from them in a safe and hygienic manner are not available on site, animal carcasses must be quickly removed to a professional veterinary laboratory/centre outside the premises. If immediate post-mortem examination is not possible, then in consultation with the veterinary surgeon or practitioner, refrigerated facilities or a deep freeze dedicated only for carcasses should be provided to avoid any cross contamination and the deterioration of the diagnostic specimen, pending examination.
5. Facilities and equipment in any room provided on the premises for post-mortem examinations to include: an efficient drainage system; washable floors and walls; an examination table; an adequate selection of appropriate instruments; facilities for taking and preserving specimens; and, if larger animals are kept in the collection, a hoist.
6. Following post-mortem examinations conducted on the zoo premises, carcasses and organs to be removed swiftly and disposed of safely.

## **4. Physical Domain: Behaviour**

### **4.1 Encouragement of species-appropriate behaviour and minimizing of abnormal behaviour**

1. Animals kept in EAZA collections should be encouraged to perform as much of their natural behavioural repertoire as possible and acceptable.
2. Members should encourage species-specific behaviour through behaviour management and enrichment programmes. Important elements in achieving this are:
  - a. Collection planning;
  - b. Enclosure design;
  - c. Enrichment and feeding regimes;
  - d. Training programs.
3. Members should regularly measure and evaluate the behaviour of animals in EAZA collections to ensure it sufficiently reflects the well-being of the animal.

### **4.2 Enrichment**

1. Members must provide a wide range of behavioural enrichment in categories including but not limited to: sensory (tactile, scent, taste,

visual, sound), novelty (new furniture or exhibit features, new foods), natural feeding behaviours (foraging, whole carcass, climbing poles, whole foods), cognitive challenges (puzzles, training, variability of schedules) and social (participatory activities, social groups, breeding))..

2. Enrichment programmes should include a standardized approval process considering safety of enrichment, suitability for the species, potential negative impacts, health etc.
3. Enrichment should be recorded and tracked as part of daily record keeping and evaluated for success and, if needed, modified according to individual animal needs.

#### **4.3 Social Group Management**

1. Facilities for keeping animals shall allow for maintaining a social unit that reflects the life history of a given species in the wild and thus may need to have sufficient flexibility to adapt towards changing group dynamics.
2. Before introducing a new individual to a social group, an assessment should be made of its adaptability to the group and consequently the implications for its individual welfare, as well as the welfare of the animals in the social group.
3. Appropriate monitoring should be in place after introduction of a new individual to a social group to assess the success of the introduction and modify the situation as needed.

#### **4.4 Elephant Management**

1. Historically two different elephant management systems exist: protected and free contact. These two systems are mutually incompatible, and it is very challenging to move elephants from one management system to the other. In the light of this fact, EAZA acknowledges that to integrate elephants to allow for the greatest possible genetic and demographic diversity, adoption of a single management system for both species of elephant in the care of EAZA institutions is required; protected contact is this system.
2. Protected contact (PC) is where the management of the elephant and all contact is undertaken through a purpose-built protective barrier. Protected contact training is achieved through optimal training procedures that maximize benefits with an emphasis on positive reinforcement using targets, desired items and experiences, body positioning and the voluntary participation by the elephant. The elephant and elephant staff do not share the same space; except under conditions where restricted contact (RC) is required as a management tool within a protected contact system.
3. Direct contact with an elephant on restraints (ropes or chains) is not



protected contact; it is restricted contact. This is when an elephant, for example, is put on four restraints during a specific procedure such as but not limited to EEHV treatment of calves, transport, or rectal examination in an elephant restraint device(ERD) or an artificial insemination (AI).

4. Restricted Contact procedures must be individually risk assessed and carried out by experienced elephant staff.
5. All elephant holders in the EAZA Membership to use Protected Contact coming into effect from January 2030 onwards.

#### **4.5 Training and visitor demonstrations/interactions**

Training falls into several categories including the following: training to cooperate in medical care, training to cooperate in day-to-day care, training to address undesired behaviour, training for educational purposes, training for scientific studies, and conservation of a species.

##### **1. Animal training for animal management purposes**

Training to allow for body inspection, veterinary diagnostics (blood draw, ultrasound, wound management, etc.), exercise and mobility can reduce animal stress, reduce need for physical or chemical restraint, and improve animal care outcomes.

##### **2. EAZA supports the training of animals for management purposes provided that:**

- a. Reinforcement rather than punishment is used whenever possible;
- b. The least restrictive procedures likely to be efficient and effective must be used and training procedures should be regularly reviewed and appraised to this effect;
- c. Pain, fear or anxiety must never be used to influence animal behaviour. The only exception is if an animal or human life is at risk.
- d. The training goals are not detrimental to the welfare of the animal or its conspecifics;
- e. The training process is documented and evaluated to measure impact, implementation and success and that animal welfare is maintained;
- f. Training must also be regularly reviewed to ensure that the safety of staff and visitors is high.

##### **3. Animal training for educational demonstrations and interactions**

EAZA defines demonstrations as any case where an animal is exhibiting natural behaviours/capacities, trained or natural, or medical training behaviours, while under the supervision or control of a trainer with the

aim of engaging and entertaining our visitors. This would also include visitor interactions and experiences. Effective, efficient, and optimal evidence-based training procedures that maximise benefits and minimise harms are to be utilised for training animals to participate in educational demonstrations and interactions.

For specific taxa guidelines, Members should refer to TAG demonstration guidelines when available.

#### 4. Behaviour guidelines

EAZA encourages its Members to focus on behaviours that are demonstrations of the animals' natural intellectual or problem-solving ability and natural behaviour or physical attributes. Practices that should be avoided in demonstrations include:

- a. Any practices that provide audiences with a misleading impression of the species-typical behaviours or makes claims about animal behaviour that are not substantiated by scientific evidence;
- b. The use of props where their use cannot be shown to demonstrate or replicate natural behaviour. Static stage sets would not be defined as props;
- c. Any behaviour that when implemented poses a demonstrable or probable risk toward animal health or welfare. As described in section (4.5.2), EAZA strongly encourages facilities to implement a system to document and evaluate the impact of a training program for all stakeholders. This can include welfare audits of new behaviours, routines, props, and training procedures.

#### 5. Human/Animal interactions

EAZA does not support educational demonstrations and/or interactions which place humans or animals at a risk including:

- a. Any situation where an animal, a staff member or visitors' safety is unnecessarily and knowingly placed at risk;
- b. Any situation in which behaviours indicative of distress are observed such as escape or avoidance behaviours, aggressive behaviour to increase distance from a stimulus, or learned helplessness;
- c. The intentional use of aversive stimuli to inflict pain, fear, anxiety or distress. The only exception is if an animal or human life is at risk;
- d. Direct physical contact between humans and animals in a demonstration for the sole purpose of entertainment, where there is no accompanying demonstrable educational value.

#### 6. Demonstration related to health of animals

EAZA does not support the use of rearing or feeding techniques for demonstrations that directly affect the welfare and health of the animal,

including:

- a. The premature removal of an animal from the mother with the intention of hand-raising specifically for use in a demonstration when this causes psychological distress to the offspring or mother and/or known undesired behavioural responses at different life stages;
- b. Reliance on the micromanagement of weights and diets to create motivation for food. Welfare issues that can arise include the use of deprivation to the point that it risks the health of the animal. Animals can learn to overeat when food is only available for limited times. Undesired behaviours can emerge in between feedings that can be difficult to address (such as stereotypies, polydipsia, pica, etc.);
- c. Any techniques that would negatively affect the EAZA Ex situ Programmes.

## 7. Demonstration and Interactive environment

EAZA does not support placing animals in a demonstration or interactive environment that does not reflect these Standards, particularly where these conditions could cause them stress or physical harm.

### a. Off-demonstration housing

EAZA Best Practice guidelines and these Standards should be followed for all off- demonstration housing, pre-and post-demonstration holding enclosures and areas and conduits used for moving animals between their enclosures and the demonstration space.

## 8. Animal selection

EAZA does not support the use of animals in demonstrations should they contradict any other Position Statement or Standards approved by the Association. This includes:

- a. Use of animals that display recessive allele characteristics,
- b. Use of animals that are physically unfit to participate or animals exhibiting behaviours indicative of distress that cannot be reasonably addressed with a training programme such as:
  - i. Escape or avoidance behaviours.
  - ii. Aggressive behaviour to increase distance from a stimulus.
  - iii. Learned helplessness.
- c. Use of EEP animals that will interfere with the breeding programme recommendations. The EEP programmes must take priority over the needs of an individual member's need for a demonstration animal.
- d. Rescued or rehabilitated animals may be used in demonstrations within their specific medical or behavioural needs.

9. Demonstrations carried out by a third party

Any animal demonstration conducted by a third-party contractor on behalf of and on the premises of a Member institution must also follow these Standards. It is the responsibility of the Member to investigate the welfare, training procedures off season care and holding, and breeding responsibility of the contracted organisation. The Member is ultimately responsible for ensuring that the contractor's work is in line with these Standards.

## 5. Animal Welfare

1. Members must have an institutional welfare policy based on the Five Domains Model that includes:
  - a. A programme for carrying out animal welfare assessments;
  - b. A system in place that is able to act on the outcomes of welfare assessments to enact positive change where needed.
2. Guidance for animal welfare assessments
  - a. Animal welfare assessments should focus on using output based measures;
  - b. Animal welfare assessments should be carried out on every individual or group at least one time per year, unless special needs (end-of-life issues, changes in social group, health concerns including pregnancy or illness, major changes to enclosure, etc) indicate the need for additional evaluation;
  - c. If it is not possible to individually identify individuals, group welfare assessments can be carried out;
  - d. Where available, use a species/taxon specific assessments against species/taxon specific metrics of welfare. When not available, use an output-based assessment that best fits the situation and species;
  - e. Assessments should be maintained for longitudinal evaluation preferably in a digital version to allow for data extraction and transfer;
  - f. Welfare assessments must be available for viewing by an EAZA Accreditation Team or by the EEO for the reasons of accreditation.

## 6. Population Management

### 6.1 Reproduction

1. Reproduction is an integral part of the quality of life and natural behaviour of each living animal. Reproductive management in zoos considers the interaction between reproduction, animal welfare, health, demographic and genetic goals and animal management limitations.

2. Contraception should be considered under the following circumstances:
  - a. If offspring cannot be kept at the institution or placed in other suitable conditions elsewhere, and culling is not deemed appropriate;
  - b. If reproduction negatively affects health or contributes to a net reduction in welfare to sire, dam, offspring, or group members. Where a net reduction in welfare is unavoidable, ethical decision-making regarding conservation benefits and potential welfare impacts should be considered.
3. It should be considered that long pauses or late start of reproduction in females may have irreversible consequences on their reproductive health.
4. Following the consideration of immediate and long-term impacts on the health, welfare, and reproductive potential of the species and individual (e.g. see point 3 above), the following contraceptive measures can be considered to extend inter-birth intervals or to limit undesired reproduction:
  - a. temporary separation, or contrarily in some cases the continued holding together mixed-sex groups in species with an alpha male and female breeding strategy;
  - b. holding of only one sex of a species; all-male or all-female groups;
  - c. removal, shaking or freezing (of part) of egg clutches, and/or replacement with dummy eggs;
  - d. hormone treatment by injections, oral medication, or implants in females or males;
  - e. immunocontraception of males or females using vaccines;
  - f. permanent sterilization of males or females; including vasectomy and castration in males; and salpingectomy, ovariectomy, or ovari hysterectomy in females.
  - g. pharmacologic abortion of accidental and/or unwanted pregnancies.
5. Management euthanasia of offspring at dispersal age or later, as outlined in section 6.4, may be an alternative to contraception and favours full reproductive behaviour of sire and dam. Members should refer to the EAZA Management Euthanasia/Culling Statement for further guidance.
6. In animals in which reproduction is deficient but yet desired, an assessment of fertility should be considered, specifically prior to transport for breeding purposes.
7. If an EAZA Ex situ Programme (EEP) is in place, Reproductive Management decisions are coordinated in the framework of the

programme. Members should refer to the EAZA Population Management Manual for the EEP (non-)breeding and transfer recommendation rules and procedures as well as the EAZA Acquisition and Disposition procedures. The EAZA Reproductive Management Group can furthermore be contacted for expertise and guidance on Reproductive Management. Members are encouraged to monitor the effects of contraception and to share these records with the relevant coordinator and the EAZA Reproductive Management Group.

8. Breeding practices that increase the phenotypic expression of single rare alleles through intentional inbreeding cause clearly abnormal or aberrant external and internal conditions and characteristics. The predictability of such outcomes from intentional inbreeding to produce phenotypic anomalies means that EAZA Members must not engage in such intentional breeding practices for the expression of rare recessive alleles. This applies in all situations, taking into consideration that:
  - a. EAZA Members may provide holding and care for animals that were intentionally bred for the expression of rare recessive alleles prior to 1 November 2020;
  - b. EAZA Members may bring in animals that were intentionally bred for the expression of rare recessive alleles from external parties (non-EAZA Members) only when responding to animal rescue requests from local, state, or federal agencies, provided that the delivery of thoughtful educational messages about the potential harm of inbreeding and lack of conservation benefit are part of any visitor or public display.

## 6.2 Hand rearing

1. Natural rearing is preferred over hand rearing whenever possible. EAZA Members should minimise the need for hand rearing by providing appropriate accommodation and care for the individual animals and when applicable the social group.
2. When natural rearing cannot be achieved EAZA Members shall assess the need and possibilities for hand rearing considering potential behavioural implications for the individual, the importance for the social group and the overall population.
3. Management euthanasia may be an alternative to hand rearing particularly when introduction potential into the group is low, behavioural problems are expected and/or when sufficient future "quality of life" cannot be guaranteed.
4. In certain species foster rearing could also be considered as an

alternative to hand rearing. In the case of EEP species, the coordinator should be consulted before making any decision (time allowing).

5. If hand rearing is decided upon it should be aimed at raising the individual(s) such that it develops as much species-specific behaviour as possible, and the animal(s) should be introduced back to its conspecifics as soon as possible.
6. EAZA Members should focus any communication related to hand rearing on the biological considerations and purpose of hand rearing the animal and avoid anthropomorphic interpretations for the purpose of commercial gain.

### **6.3 Transfer and disposition of animals**

1. Members should ensure that all recipients of animals have appropriate facilities to hold the animals and skilled staff who are capable of maintaining the same high standard of animal management and welfare as required of EAZA Members (in this context circuses would not be regarded as appropriate recipients of animals from EAZA Members).
2. Any details of health, diet/nutrition, reproductive and genetic status and behaviour that might affect management of an animal being transferred (or other animals in the group at the receiving institution) should be disclosed at the commencement of negotiations.
3. All animal transfers should conform to the international standards applying to the particular species. Where appropriate, animals should be accompanied by qualified staff and/or timely information provided that will facilitate the animal's adjustment to its new home.
4. For the benefit of the future viability of EAZA/EEP populations, all transfers of EEP animals must be arranged in full consultation with, and the prior written agreement of, the EEP Coordinator as specified in the PMM.
5. In order to ensure the non-commercial status of EEPs any selling of EEP animals must be avoided.

### **6.4 Management Euthanasia**

Management euthanasia may be acceptable under certain conditions beyond veterinary indication, such as the following:

1. Animals that can/may no longer make a breeding contribution, for example because of old age, genetic over-representation or the possession of undesirable inheritable genetic traits.
2. Young animals born despite reproduction-limiting measures.
3. Animals for which you can no longer guarantee the appropriate quality of

life either in your own institution or elsewhere (e.g. Incompatibility of an animal with other animals in its enclosure.).

4. Hybrids and animals of an unknown or undefined subspecies in cases in which this is considered of importance.
5. Animals that are more aggressive to humans and to conspecifics than is reasonably expected.
6. Donated or otherwise acquired rehabilitation animals.
7. Deciding on the appropriate time for intervention should among others take account of the species' reproductive strategy.

## **6.5 Animal Records**

### **6.5.1 Record Keeping Software**

1. Animal records are to be kept on a computer system using the Zoological Information Management System (ZIMS), and to be included on the global zoo animal database of Species360, by means of which information can be quickly retrieved.
2. Alternatively, animal records may be kept by means of an established and globally recognised and accepted record system, which is easily able to share data with ZIMS and that is maintained in relation to all individually recognised animals and groups of animals. If a Member wishes to use an alternative record system, it shall request prior approval of the Council. The Council shall decide in its absolute discretion.

### **6.5.2 Data Management and Reporting**

1. There must be a dedicated member of staff responsible for the animal records who acts as a designated point of contact for any queries. (This does not need to be their sole responsibility/role).
2. The dedicated staff member responsible for the animal records should be sufficiently trained in the use of ZIMS (or agreed software) and in animal records best practice (through formal or informal training).
3. All records can be kept in the local language or in the English language (to facilitate the international exchange of information and cooperation).
4. Members should, on request, be able to provide an overview of all animal records through the various ZIMS (or agreed software) reports.
5. Animal transactions (births, deaths, dispositions, acquisitions) must be kept up to date regularly and should not be more than 1 month out of date. All remaining animal records should not be more than 3 months out of date.
6. All individually identifiable animals within your institution should be



managed as individual records.

7. Group/colony records should only be used for animals that are not individually identifiable. Group records should be maintained with regular census counts, at least annually (this may be a best estimate where exact counting is not possible - e.g., large groups of invertebrates).
8. All known transactions (e.g., acquisitions and dispositions, and observed births and deaths) must be recorded.

### 6.5.3 Recording Animal Information

1. An individual animal record must provide the following information at minimum, in a transparent manner:
  - a. The correct taxonomic identification and scientific name;
  - b. Any distinctive identifiers, including natural marking or microchips, leg bands, etc.;
  - c. Birth information including date and location (i.e., whether wild or captive born);
  - d. The parents of the animal;
  - e. The rearing of the animal (where known);
  - f. The sex of the animals (where known);
  - g. Any contraception administration, whether temporary or permanent;
  - h. The dates of entry into the collection and from whom;
  - i. The dates of disposal from the collection and to whom;
  - j. The date and circumstances of death and the result of any post-mortem examination;
  - k. The date and details of any escapes, or any damage or injury caused to, or by, an animal to persons or property.
2. Group records must provide the above information where known, with the addition of:
  - a. History of census counts;
  - b. Date of when the group established;
  - c. Transfers in and out of the group (including within the collection and between collections).
3. Members are expected to maintain daily care records for all animals in their institution. Daily care record requirements and priorities will vary depending on the taxonomy, but include behavioural notes, health observations, breeding, record of feeding, training sessions, enrichment, welfare assessments, water and environmental quality, and other records deemed necessary by the animal care and management staff.
4. Records should be recorded in ZIMS to allow for longitudinal evaluation and tracking patterns of behaviour or health observations, as well as for

screening inspection.

5. Any records that are not recorded in ZIMS should be maintained at least for the life span of the animal to allow for further longitudinal trend tracking.

## **6.6 Transportation and Movement of Live Animals**

1. Facilities suitable for hoisting, crating, and transportation of all types of animals kept within the zoo, to destinations both inside and outside the zoo, to be available if not kept at the zoo.
2. Any animal taken outside the zoo must be in the personal possession of the zoo operator, or of competent persons acting on their behalf, and adequate provision to be made for its safety and well-being at all times;
3. Any hazardous animal taken outside the zoo during transports, must be kept secure at all times. Such animals are to be kept away from direct contact with persons other than the zoo operator or competent persons acting on their behalf.
4. Institutions should consider that for certain species and/or in particular circumstances it may be appropriate for staff to accompany animals during and after transport.

## **7. Safety and Security**

### **7.1 General provisions**

1. Local safety and security legislation regarding zoos must be applied.  
When EAZA rules are stronger than local legislation, EAZA rules are to be followed where applicable, particularly when Best Practice Guidelines are available.

### **7.2 Enclosures**

1. Other than when elsewhere in the control of authorised staff, animals kept for exhibition in the zoo to be kept at all times in enclosures or, in the case of free-ranging non-hazardous animals, within the perimeter of the zoo.

### **7.3 Enclosure Barriers**

1. Enclosure barriers to be designed, constructed and maintained to contain animals within the desired enclosures.

### **7.4 Stand-off Barriers**

1. Where direct contact would be possible between visitors and hazardous animals through or over any enclosure barrier, to the extent that such an animal would be capable of causing injury, a stand-off

barrier to be provided sufficiently far back to prevent such contact.

### 7.5 Perimeter Boundaries

1. The perimeter boundary, including access points, to be designed, constructed and maintained to discourage unauthorised entry and, so far as is reasonably practicable, as an aid to the confinement of all the animals within the perimeter of the institution.
2. The perimeter boundary should not serve as primary animal enclosure boundary, with some exceptions such as free-ranging animals. If the perimeter boundary serves as the primary animal enclosure boundary, provisions must be made to prevent animal escape and prevent access to the animals from outside the zoo (feeding over fences, touching through fences, etc).
3. No perimeter barrier to include any electrical section less than 2 metres from the ground and not within reach of visitors.

### 7.6 Warning Signs

1. In addition to a stand-off barrier, an adequate number of clearly visible safety signs to be displayed at each enclosure where there may be significant danger, including electric fences.

### 7.7 Drive-Through Enclosures

1. Unless there is stricter local legislation, this chapter will be applied to drive-through enclosures.
2. Where dangerous carnivores are kept in drive-through enclosures, entry and exit to such enclosures to be through a system of double gates, with sufficient space between to allow the gates to be securely closed to the front and rear of any vehicle which may enter or need to enter the enclosures.
3. In the case of dangerous carnivores the access gates to be protected by fencing positioned at right angles to the perimeter fence on each side of the roadway with the enclosure, and of the same standard as that for the main enclosure barrier and extending back from the access for a distance of at least 25 metres.
4. Double gates to be designed and maintained so that, where hazardous animals are within or have access to the enclosure secured by the gates, one gate cannot be opened until the other has securely closed - though, provided no danger to visitors is thereby caused, provision may be made for this arrangement to be overridden in the event of an emergency arising.
5. For other hazardous animals, except those grazing or hoofed animals

where a cattle grid would be sufficient to contain them, single entry/exit gates, supervised at all times, to be provided.

6. Access points between enclosures to be controlled to prevent animals entering adjoining enclosures.
7. Electrified pressure pads, where used, to be designed and installed to ensure that in the event of their failure, any gate they control will close automatically or otherwise operate to ensure that animals are safely secured within their enclosure.
8. Gates which are mechanically operated to have an alternative method of control whereby they can be opened and closed manually in the event of an interruption of the power supply or other emergency and to be designed to close automatically when subject to power failure.
9. Operators of mechanically operated gates to have a clear, unobstructed view of the gates under their control and of the area within the vicinity of those gates.
10. A one-way road system to be used to assist the traffic flow and thus reduce the risk of accidents.
11. Stopping to be permitted only at places where the road is at least 6 metres wide relative to the vehicle.
12. A rescue vehicle must be available at all times when visitor vehicles are permitted to enter carnivore, primate or hazardous animal enclosures no vehicle to be allowed access unless a rescue vehicle capable of effecting the vehicle's recovery is immediately available.
13. Access to vehicles without a solid roof to be prohibited at all times.
14. Notices, which are readily visible and easy to read, to be displayed to ward visitors whilst in the enclosure to -
  - a. Stay in vehicle at all times;
  - b. Keep all vehicle doors locked;
  - c. Keep vehicle windows and sunroof closed;
  - d. Sound the horn or flash the headlights and await the arrival of a rescue vehicle if they break down.
15. Continuous observation to be maintained over the entire area of each enclosure containing any hazardous animal (video surveillance is acceptable).
16. The staff member in overall control of supervision to be armed with an appropriate firearm and to be trained in its use so that a hazardous animal can be killed in an emergency if this will save human life or injury.

## **7.8 Removal of animals from enclosures**

1. Hazardous animals not to be allowed out of their usual enclosures for the purpose of direct contact with visitors.
2. Where non-hazardous animals are allowed out of their usual enclosures an authorised and experienced member of the staff to accompany each animal.
3. Precautions to be taken to avoid injury to visitors when (domestic) animals are used for rides.

## **7.9 Animal escape and animal related emergencies**

1. Members must have a written animal escape and related emergency plan that is posted (in summary form), accessible and staff informed of its use.
2. Institutional emergency plans should include:
  - a. A comprehensive list of 24-hour phone numbers to include, but not limited to, emergency services, vets, local authority (if applicable) team leaders, senior staff, firearm team, neighbours, etc.;
  - b. A list of roles and responsibilities of key personnel during the emergency such as office coordinator, radio controller, gate supervisor, firearms team and lead, Duty Manager, etc. and what responsibilities the different departments have;
  - c. Animals must be categorised so it is clear when firearms should be deployed;
  - d. A clearly defined 'command and control' system for each category of animal involved;
  - e. Described and outlined communications protocols (radio, mobile phones, etc).
3. The visitor zoo map should show the zoo perimeter, entry/exits, entry point for emergency services, first aid post.
4. Appropriate firearm response should be available at all times; what is considered appropriate can vary depending on when visitors or staff are on site or not, national legislation, collection of animals etc.
  - a. If the gun coverage is to be managed by the police or official hunters, a signed contract must be in place outlining the conditions and response times.
  - b. There must be documented training, practice and drills in place for firearm use.
5. In case of animal escapes, zoos must take immediate and appropriate measures of action to recapture or otherwise resolve the escape.

6. When animals have escaped outside the zoo perimeter boundaries it is additionally important to address a risk of cross breeding with local species and/or contributing to the problem of Alien Invasive Species (AIS).
7. In addition to written emergency plans, animal-related emergency drills must be performed at least once per year.  
Examples of drill scenarios:
  - a. Hazardous animal escape;
  - b. Animal care staff injured;
  - c. Visitor in animal area.
8. Animal emergency drills must include all relevant staff of the zoo but does not need to include visitors (although carrying out drills when visitors are in the zoo is recommended where possible and practicable).
9. These drills would include use of communication (zoo emergency numbers, radios vs mobile phones), alarms, gun team readiness, and staff response times.
10. Emergency services (police, ambulance) may also be incorporated in the practice as a pre-arranged response time test and must be included on a semi-regular basis if they are expected to serve as primary firearm response.
11. Drills may be surprise or pre-planned and discussed beforehand with the staff.
12. In addition to animal-related emergency drills, other emergency drills, such as fire, flood, bomb threat, medical emergency etc., should be practiced according to local legislation.
13. Every employee with tasks under the emergency procedures to participate in periodic refresher training and practice.

### **7.10 Emergency Exits**

1. Sufficient exits from the zoo must be provided and posted, having regard to the size of the institution and the number of visitors anticipated at any time that may need to leave quickly in an emergency.
  - a. Exits to be clearly signposted and marked.
  - b. Each exit from the zoo to be kept clear and to be capable of being easily opened from inside to allow the release of persons from the institution. All such gates to be capable of being closed and secured to discourage the escape of animals.

### **7.11 Safety of access for visitors**

1. Buildings, structures and areas to which visitors has access to be

maintained in safe condition.

2. Trees within areas where visitors are likely to be walking or sitting to be regularly inspected and lopped or felled as appropriate to avoid visitors being harmed by falling branches etc.
3. Warning to be given of all design elements where a person might fall, including into water; and, where necessary, such elements to be guarded by a barrier which would be capable of restraining children from falling.
4. Each walkway over an animal enclosure to be designed, constructed and maintained to withstand safely the weight of the maximum of adults who could use it at any time; and maintained, sited or protected so as to withstand any contact by hazardous animals and prevent contact between such animals and visitors.
5. The visiting public not to be allowed to enter any buildings or other areas of the zoo premises which could present an unreasonable risk to their health and safety.
6. Any buildings to which visitors are not allowed on the grounds referred to above, to be kept locked and warning notices to be displayed to indicate that access is both unsafe for, and not permitted to, visitors.
7. Other areas to be clearly defined (e.g. by means of barriers and similar warning notices), or by suitable notices together with road markings where frequent access is necessary for vehicles operated by zoo staff along roadways to which visitors are not admitted.

### **7.12 Emergency First-Aid**

1. First-aid equipment and written first-aid instructions to be readily accessible on the premises according to local legislation.
2. A reasonable number of zoo staff should be provided first aid training when permitted within national law.
3. Additional first aid provision and training for divers should also be provided within the need of the facility, including but not limited to water extraction boards.
4. Where venomous animals are kept, the appropriate and up-to-date anti- venom to be held at the zoo or a local hospital or accessible within a reasonable time frame ensuring the safety of staff and visitors and kept in accordance with the manufacturer's instructions.
5. Written instructions to be provided for staff on the procedure to be followed in the event of an incident involving any venomous animal and a visitor or another staff member. These instructions would include immediate care instructions, the telephone number of the

nearest hospital and poisons centre, and normal emergency contacts.

A pre-prepared form that can be sent with the patient being sent to the local hospital should include:

6. The nature of the bite or sting and the species inflicting it;
7. The specification, for cross-reference purposes, of the anti-venom which accompanies the patient;
8. The telephone number of the nearest poisons centre;
9. The telephone number of the institution.

## **8 Miscellaneous**

### **8.1 Insurance against liability for damage or injury caused by animals**

1. Zoos should have appropriate insurance arrangements which indemnifies them and every other person under a contract of service or acting on their behalf, against liability for any damage or injury which may be caused by any of the animals, whether inside or outside the zoo, including movement by vehicle. Any upper limit on the sum involved which is included in the terms of such insurance to be set at an adequate and realistic level.



## Annex 1 List of dangerous and hazardous animals in zoos and aquariums

This list is specific in the context of terms used in EAZA Standards and other documents. There may be additional or different local legislative requirements relating to 'dangerous and hazardous animals' that Members should also be aware of. This list is not exhaustive, and Members must make decisions based on their own knowledge and experience.

### Preface:

- This list applies only to non-domestic animals kept under zoo, aquarium or safari park conditions.
- The animals listed can do harm to their caregivers or to visitors due to their physical strength, attributes such as toxins, teeth, spines, etc., and behaviour.
- Some animals listed are dangerous only during the breeding season.
- Some animals listed can, under exceptional circumstances (including hand-rearing) and subject to unprofessional handling, be hazardous.
- Dangerous carnivores are those mentioned with an asterisk (\*).

<u>Scientific name</u>	<u>Common name(s)</u>	
<b>Mammalia</b>	<b>Mammals</b>	
<b><u>Marsupialia</u></b>	<b><u>Marsupials</u></b>	
Macropus rufus	Red Kangaroos	Large males
M. fuliginosus	Gray Kangaroos	Large males
M. robustus	Wallaroos	Large males
<b><u>Primates</u></b>	<b><u>Primates</u></b>	
Pongidae	Apes	Adults
Hylobatidae	Gibbons	Adults
Cercopithecidae	Leaf eating monkeys	Adult males
	Macaques (except Macaca sylvana)	Adult males
	Mangabeys	Adult males
	Guenons	Adult males
Atelidae	Woolly monkeys	Adult males
	Spider monkey	Adult males

	Howler monkeys	Adult males
Cebidae	Capuchin monkeys	Adult males
<b><u>Carnivora</u></b>	<b><u>Carnivores</u></b>	
Ursidae*	Bears*	All species
Canidae* - Canis lupus - C. rufus - Lycaon pictus	Wolves, red wolf and African wild dog	
Mustelidae - Mellivora spp. - Gulo spp.	Martens	Only ratel and wolverine
Hyaenidae (except Proteles sp.)	Hyaenas	Except aardwolf
Crocuta crocuta*	Spotted hyaena*	
Felidae: all <i>Panthera</i> spp.	- Lion* - Tiger* - Leopard* - Jaguar* - Snow leopard* - Clouded leopard - Puma - Lynx	
Pinnipedia	Pinnipeds	
Otariidae	Eared seals	Adult males
<i>Odebenus</i> spp.	Walrus	
<i>Mirounga</i> spp.	Elephant seals	
<i>Hydrurga leptonyx</i>	Leopard seals	
<i>Halichoerus grypus</i>	Grey seal	Adult males
<b><u>Cetacea</u></b>	<b><u>Cetaceans</u></b>	
<i>Orcinus orca</i>	Killer whale	
<b><u>Proboscidea</u></b>	<b><u>Elephants</u></b>	
Elephantidae	All African and Asiatic elephants	Over two years of age
<b><u>Perissodactyla</u></b>	<b><u>Odd-toed Ungulates</u></b>	
Equidae	Wild horses, asses and zebras	Adult stallions
Rhinocerotidae	Rhinoceros	
Tapiridae	Tapirs	Adult males
<b><u>Artiodactyla</u></b>	<b><u>Even-toed Ungulates and Suidae</u></b>	

Tayassuidae	Peccaries	All adult individuals
Hippopotamidae	Hippopotamus	River and pygmy hippo
Camelidae	Camels	Males of the Old World Camels during the rut, occasional males of the New World camels
<b><u>Cervidae</u></b>	<b><u>Deer</u></b>	All hand-reared males of Cervidae during the rut
Alces sp.	Moose	All adults
<i>Elaphurus davidianus</i>	Père David's Deer, Wapiti	
Cervus spp.	Red deer, Sika deer, Sambar and other Cervus species	Males during rut
Rangifer spp.	Reindeer	Males during rut
<i>Capreolus</i> spp	Roe deer	Hand-reared males
Giraffidae	Giraffes and Okapis	
<b><u>Bovidae</u></b>	<b><u>Cattle, Sheep, Goats, Antelopes, etc.</u></b>	
<i>Boselaphus tragocamelus</i>	Nilgai (males)	
Taurotragus spp.	Eland and Giant eland (males)	
<i>Oryx</i> spp.	Oryx (all species)	All species
<i>Addax nasomaculatus</i>	Addax (males)	
<i>Kobus</i> spp.	Waterbucks (males)	Adult males
<i>Connochaetes</i> spp.	Wildebeest (all species)	All Species
<i>Alcelaphus</i> spp.	Hartebeest (all species)	All Species
<i>Bison</i> spp., <i>Bos</i> spp., <i>Bubalus</i> spp.	Cattle (all wild species)	All wild species
<i>Syncerus</i> spp.	Water buffalo	
<i>Ovibos</i> spp.	Musk oxen	
<i>Budorcas</i> spp.	Takins	Males
<i>Caprini</i>	Goats and sheep	All males of wild species during

		the rut
<b>Aves</b>	<b>Birds</b>	
<b><u>Ratites</u></b>	<b><u>Ratites</u></b>	
<i>Struthio camelus</i>	Ostrich	
<i>Dromaius novaehollandiae</i>	Emu (in breeding season only)	
<i>Casuarius</i> spp.	Cassowaries	
<i>Rhea americana, Pterocnemia pennata</i>	Rheas (in breeding season only)	
<i>Ardea goliath</i>	Goliath heron	Not to be kept in walk-through aviaries
<i>Ephippiorhynchus senegalensis,</i>	Saddle-billed stork	Not to be kept in walk-through aviaries or behind low fences
<i>Ephippiorhynchus asiaticus,</i>	Black-necked stork	Not to be kept in walk-through aviaries or behind low fences
<i>Leptoptilos</i> spp	Marabou storks	Not to be kept in walk-through aviaries or behind low fences
<i>Struthio camelus</i>	Ostrich	
<i>Dromaius novaehollandiae</i>	Emu	In breeding season only
<i>Casuarius</i> spp.	Cassowaries	
<i>Rhea americana, Pterocnemia pennata</i>	Rheas	In breeding season only
<b><u>Gruiformes</u></b>	<b><u>Cranes</u></b>	
Gruidae	Cranes	In breeding season only
<b><u>Falconiformes</u></b>	<b><u>Birds of Prey</u></b>	
Large birds of prey, some can be dangerous (e.g. Harpia harpyja) and attack intruders of their aviary in breeding season. Not to be kept in walk-through aviaries. Tame individuals used for falconry do not fall under the category dangerous.		

<b><u>Strigiformes</u></b>	<b><u>Large owls</u></b>	
Some of the larger owls can attack intruders of aviaries during breeding season. Not to be kept in walk-through aviaries. Tame individuals used for falconry do not fall under the category dangerous.		
<b><u>Bucerotidae</u></b>	<b><u>Hornbills</u></b>	
<i>Bucorvus</i> spp.	Ground hornbills	Some individuals. Not to be kept in walk-through aviaries.
<b>Reptilia</b>	<b>Reptiles</b>	
<b><u>Crocodylia</u></b>	<b><u>Crocodiles</u></b>	
Alligatoridae, Crocodylidae, Gavialidae	Alligators, Crocodiles and Gavials	Individuals greater than 1.5m length
<b><u>Sauria</u></b>	<b><u>Lizards</u></b>	
Helodermatidae	Gila monster and Beaded lizard	
Varanidae	<i>Varanus komodoensis</i>	
	Monitor lizards <i>V. varius</i> , <i>V. niloticus</i> and <i>V. salvator</i>	Individuals greater than 1.5m length
<b><u>Serpentes</u></b>	<b><u>Snakes</u></b>	
Boidae	Giant snakes	Individuals over 3m length
Colubridae <i>Thelotornis kirtlandii</i> and <i>Dispholidus typus</i>	<i>forest vine snake and boomslang</i>	Only venomous species
Elapidae, Hydrophiidae, Viperidae, Atractaspididae Crotalidae	Venomous Snakes	
<b><u>Testudines</u></b>	<b><u>Turtles</u></b>	
<i>Macrolemmys temminckii</i>	Alligator snapping turtle	
<i>Chelydra serpentina</i>	Common snapping turtle	
Amphibia (Amphibians)	Amphibia (Amphibians)	
<i>Dendrobates</i> spp (only wild caught animals)	Poison arrow frogs	
<i>Phylllobates</i> spp. (only wild caught animals)	Poison arrow frogs	
<b>Pisces (Fishes)</b>	<b>Pisces (Fishes)</b>	

<b>Chondrichthyes</b>	<b>Cartilaginous fishes</b>	
Myliobatidae and Dasyalidae	Stingrays	
Torpedinidae	Electric rays	
Carcharhinidae and Sphyrnidae	Larger pelagic sharks	
<b>Osteichthyes</b>	<b>Bony Fishes</b>	
Scorpaenidae: <i>Synanceia</i> sp., <i>Inimicus</i> sp. and <i>Pterois</i> sp.	Scorpaenid fish	
Trachinidae	Weevers	
Uranoscopidae: <i>Uranoscopus</i> sp.	Stargazers	
Muraenidae	Moray eels	Only large species/ individuals
<i>Conger conger</i> (large specimens)	Conger eel	
Electrophoridae spp.	Electric eel	
Siganidae	Rabbit fishes	
<b>Invertebrata</b>	<b>Invertebrates</b>	
<b><u>Arthropoda</u></b>	<b><u>Arthropods</u></b>	
Orthognata and Scorpiones	Spiders and Scorpions(certain species only)	
<b><u>Mollusca</u></b>	<b><u>Molluscs</u></b>	
Conidae	Cone shells	Certain species only
<i>Hapalochlaena maculosa</i>	Cuttlefish	