SEAZA Standard on Animal Welfare

English Version

COMMITMENT STATEMENT

SEAZA aims to emphasize its continuing commitment to the enforcement of positive animal welfare among its members and become role models in the region in the implementation of programs and activities that promote such.

To do this, SEAZA Members commit to:

- 1. Have a common understanding of positive animal welfare;
- 2. Be leaders, advocates and authoritative advisers in achieving prominent welfare standards for the animals in our care:
 - a. Provide environments that focus on the animals' physical and behavioural needs that:
 - are based on knowledge of the animal's biology and behaviour in the wild;
 - appropriately address the cognitive abilities of the animals;
 - allow the animals to behave and exercise normally;
 - protect their health and safety; and
 - offer an interesting and stimulating environment.
 - b. Initiate and implement guidelines on the care of animals used in interaction, presentation and educational programs
- 3. Provide opportunities for governments and non-member institutions in the region to adopt SEAZA standards.

This framework details fundamental captive wild animal husbandry requirements that are essential for the protection of animal well-being and supports positive in- situ conservation efforts. It specifies the primary welfare requirements for the maintenance of wild animals which is dependent upon the provision of daily care and adopts the concept of the 'Five Domains'. This acts as a foundation, defining and underpinning fundamental standards and considerations.

WELFARE DEFINITION

Animal Welfare refers to the psychological state of the animal. The animal's welfare state will be good when it experiences positive sensations that may result when the animal is in good health, and readily express a range of normal and positive behaviours. It involves a human responsibility to provide appropriate housing, veterinary treatment, behavioural management, nutrition, disease management, responsible care and use, humane handling and, when necessary, humane euthanasia. Southeast Asian Zoos and Aquariums Association The Regional Zoo Association of Southeast Asia

SEAZA believes the following principles are unacceptable and prevent the application of the principles and practices this standard is promoting:

- 1. Training practices that compromise the animal's physical or behavioural health, development or psychological well-being
- 2. Animal demonstrations and animal-visitor interactions that are detrimental to the physical or psychological well-being of the animals and do not respect an animal's dignity
- 3. Confinement in any enclosures that severely restrict physical movement and compromise psychological well-being
- 4. Mutilation procedures that prevent natural and normal behaviours or cause physiological or psychological harm.
- 5. Unregulated feeding of the animals by visitors that is detrimental to the physical and psychological well-being of the animals
- 6. The breeding of animals that results in overcrowding, disease, injury or isolation of animals within an institution
- 7. The feeding of live vertebrate animals to other animals that causes physical and psychological suffering
- 8. Unnecessary animal restraint that prevents natural and normal behaviours and movement

ANIMAL ENVIRONMENT

Key words: Animal exhibit, environmental design, environmental management, environmental enrichment, behaviour, servicing, safety, escape

1. Animal Exhibits

The standards set forth herewith are acceptable standards and must include the exercise of sound judgment based on training, education and experience and the use of information commonly accepted and used in management of captive aquatic, marine and terrestrial wild animals.

1.1. Display

Each animal must be exhibited in a manner that:

- a. Provides a setting which resembles the animals' natural habitat.
- b. Provides appropriate environmental choices, stimulation and variability that encourages an animal's normal range of behavioral activities.
- c. Provides protection from adverse conditions attributable to any environmental and climatic factor.
- d. Provides a comfortable area and suitable resting places, including items such as bedding materials, branches, burrows, nesting boxes and pools to aid and encourage natural and normal behaviour. (Semi-aquatic animals must be provided with dry areas for resting).

- e. Provides clean water for appropriate swimming opportunities for aquatic and semi- aquatic animals.
- f. Provides protective physical barriers from direct contact, abuse and harassment by the viewing public.
- g. Enable effective cleaning, maintenance and animal management that ensures a high standard of animal care.
- h. All institutions should hold appropriate relevant and up to date husbandry and specific species management guidelines where relevant.

1.2. Size & Space

Enclosure size, shape, and layout must:

- a. Provide sufficient space (vertical as well as horizontal) to enable it to have normal behaviours and locomotion;
- b. Be protected from undue dominance and conflict;
- c. Allow for appropriate social grouping at all times, and to be provided with its social breeding and husbandry/veterinary needs; and
- d. Ensure that the carrying capacity of the enclosure is not exceeded and prevent an uncontrolled accumulation of parasites and other pathogens.
- 1.3. Back of House & Holding Enclosures

Where an enclosure design utilises a holding or indoor facility, this facility must have adequate space that:

- a. Allows for appropriate environmental choices, stimulation and variability that encourages an animal's normal range of behavioural activities;
- b. Must be provided with enrichment materials and activities; and
- c. Must be provided with shelter from people, other members of the same species (if of multiple animal containment), and other animals within the facility.

Further, each holding enclosure or back of house must:

- a. Be of adequate size and lighting for proper cleaning and carrying out routine health and hygiene checks.
- b. Be provided with ventilation and designed to minimize undue draughts, odours and moisture condensation.
- c. Be provided with light of due quality, intensity and duration so as not to interfere with the normal physiological and behavioural patterns of the animal (i.e. for diurnal animals).

- 1.4. Safety & Security
- 1.4.1. Provisions for Gates and Doors
 - a. Gates or doors on the perimeter of an enclosure must open inwards to the enclosure.
 - b. If an entrance to an enclosure is a safety entrance through successive gates or doors, they must open inwards towards the enclosure.
 - c. A gate, door or slide giving entrance to an enclosure must be designed that an animal in the enclosure cannot lift the gate of door off its hinges or a slide off its tracks.
 - d. All gates and doors and must be provided locks and other security measures to prevent animals from opening or lifting gates and doors.
- 1.4.2. Provisions to Prevent Animal Escapism
 - a. An enclosure must be constructed that if the visiting public and the animal attendants exercise due care, they are safe, and an animal in the enclosure can escape only in circumstances that cannot reasonably be foreseen and guarded against, and the risk of injury to an animal in the enclosure is minimized.
 - b. Infrastructural design must be safe for the animal, predator proof and must consider the animals' natural behaviours so that animals cannot escape and so that animals are deterred from trying to escape.
 - c. The enclosure in which a digging or burrowing animal is kept must be constructed with a subterranean floor consisting entirely of concrete or a suitable material like hot dipped galvanised or stainless steel mesh covered by sufficient soil depth so that the animal can dig a burrow without escaping.
 - d. All institutions should hold a written emergency protocol for managing animal escapes which must comply with all relevant local and national legislation. A record of all escapes must be kept and every attempt must be made to recover all escaped animals, live or dead.
- 1.4.3. Provisions for Dangerous Animals
 - a. The entrance to an enclose in which a dangerous animal is kept (other than a reptile pit) must be by means of a safety entrance through successive gates or doors which are kept locked unless a person is within the enclosure.
 - b. If the doors of gates through which such an enclosure is entered are electrically operated, they must be provided with alternative means by which they may be manually operated without risk to the operator.
 - c. The operating position for gates, door, slides or other means of access must provide a safe means of access and a clear view of the gates, doors, slides and other means of access, and the immediate surrounding area.

- 1.4.4. Provisions for Public Barriers
 - a. Barriers such as fences (wood, steel, electric) must be provided to prevent direct contact between the animals and visitors.
 - b. Enclosures should be built in a way that a safe zone is provided between the animals and the areas where visitors can watch the animals.
- 1.4.5. Provisions for Warning Signs
 - a. If an enclosure contains an animal that is known to be dangerous, or may reasonably be suspected of being dangerous, or is dangerous because it includes an electrified fence, the enclosure must be provided with an adequate number of clearly visible and legible signs giving proper warning by means of words, symbols, or both, of the danger.
 - b. The signs in a drive-through area must warn visitors of the following:
 - types of animals in the area
 - to keep the vehicle moving, the motor running, and close all doors and windows including the sunroof
 - to provide directions in case of animal incident, animal attack, or vehicle breakdown

1.4.6. Provisions for Aquatic & Marine Animals

The environment in an aquarium also requires careful management to safeguard the welfare of the animals within the aquarium. Water requirements will vary in accordance with the different species being accommodated. All documented animal exhibit provisions apply to aquatic and marine animal enclosures. In addition:

- a. Aquaria must provide enclosures of suitable size, design, depth and volume for the species and number of individuals accommodated.
- b. Appropriate temperature and water flow gradients must be provided that meet the species requirements.
- c. Water of light spectrum, and water chemistry (ie pH, salinity and oxygenation, concentrations of carbon dioxide and ammonia, nitrite and nitrate levels) must be provided that is appropriate for the species;
- d. Water must not contain harmful contaminants and should be filtered;
- e. Water quality (pH, salinity, concentrations of oxygen, carbon dioxide and ammonia, nitrite and nitrate levels) should be tested regularly by suitably trained personnel, and maintained within the parameters appropriate for the species;
- f. Enclosures must be constructed using materials safe for the animals, watertight, well maintained and which can be appropriately cleaned;
- g. In situations where water environments are provided outside, the water quality in pools must be protected from contamination from drainage water or excessive overflow from surrounding land or buildings; and
- h. The environment should ensure appropriate controls on noise level at all times.

1.5. Guidelines for Animal Movement

- 1.5.1. Acquisition of Animals:
 - a. All members will endeavour to ensure that the source of animals is confined to those born in captivity and this will be best achieved by direct zoo to zoo contact. This will not preclude the receipt of animals resulting from confiscation or rescues. It is recognized that there is a legitimate need for conservation breeding programs, education programs or basic biological studies to obtain animals from the wild.
 - b. If obtained from the wild, members must be confident that acquisitions will not have a deleterious effect upon the wild population. An acquisition should only occur if the institution has the appropriate facilities and expertise to care for the species to a high standard for the whole of an animal's life.
- 1.5.2. Transfer of Animals
 - a. Members should have a standard operating procedure and guidelines that are regularly reviewed to ensure high standards of ethical animal movement.
 - b. Members will ensure institutions receiving animals have appropriate facilities to hold the animals and skilled staff who are capable of maintaining the same high standard of husbandry and welfare as required of all SEAZA members.
 - c. All animals being transferred will be accompanied by appropriate records with details of health reproductive and genetic status and behavioral characteristics having been disclosed at the commencement of negotiations. These records will allow the receiving institutions to make appropriate decisions regarding the future management of the animal.
 - d. All animal transfers should conform to the international standards applying to the particular species. Where appropriate, animals should be accompanied by qualified staff.

ANIMAL NUTRITION

Key words: Nutrition, Kitchen Hygiene, Kitchen Protocols, food preparation

1. Nutrition and Feeding

General Guidelines on Nutrition, Kitchen Hygiene and Kitchen Protocols

1.1. Food

- a. Each facility should have a diet plan with proper documentation.
- b. Each animal should be offered an appropriate balanced diet with variety or wholesome and palatable food and water in quantities that are sufficient to provide for its good health.
- c. The diet should be suitable for the animal's species, age, size, body condition, activity level, and reproductive and health status.
- d. Veterinary advice must be obtained and followed in relation to the addition of food supplements to the ordinary diet of animals.

- e. Food must be clean, unspoiled and free from chemical and biological contamination.
- f. Water for animals must be changed daily and not allowed to become stagnant.
- g. Food should be presented to animals in a way that satisfies the animal's natural feeding behavioural requirements and motivations. Food related enrichment strategies should form an important part of enrichment programs.

1.2. Utensils & Food Preparation Area

- a. Food preparation areas must be washed down daily and treated with appropriate disinfectants.
- b. High standards of cleanliness must be observed by staff engaged in the preparation of food and drinks for the animals and adequate facilities must be provided for cleaning of utensils and equipment used.
- c. Utensils and equipment used for the offering of food and drink to animals must not be used for any other purpose, must be easy to clean and designed to avoid injury to the animals and staff, and must when placed in an enclosure be in such a position that each animal in the enclosure has easy access to sufficient food and water and the risk of contamination from soiling by the animals is minimized.
- d. Utensils and equipment used in preparing and distributing food and drink must be cleaned after use and kept clean when not use.
- e. Utensils and other equipment used in preparing the food and drink must not be used for any other purpose.

1.3. Storage

- a. Supplies of food for the animals must be stored in facilities in which they are adequately protected against deterioration, mould and contamination
- b. Toxic substances, dead animals and discarded foodstuff must not be kept in a food storage area separate to foods being provided.
- c. Frozen food must be stored at a temperature that is not higher than 18 degrees below Celsius.

ANIMAL BEHAVIOUR

Key words: Enrichment, husbandry, training, animal shows, presentations

1. Environmental Enrichment

- a. Environmental enrichment should be part of the daily care routine and be equipped and designed to aid and encourage normal and positive behaviour patterns and minimise any abnormal behaviour.
- b. Social species shall be kept in compatible social groups and never housed in isolation. The group must consist of an appropriate number, age and sex ratio of animals. Social animals should not be housed in isolation except where it is necessary for veterinary purposes.

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c. Institutions should have a written environmental enrichment protocol for all species that creates a stimulating and appropriately complex environment. The protocol should include species appropriate; enclosure design, enclosure infrastructure, diet and feeding, social or compatible grouping, training, animal keeping and veterinary practices.

2. Animal Training

- a. Training should not cause the animal any pain, injury or distress and all methods of training must use positive reinforcement techniques.
- b. The deliberate infliction of injury, pain or fear is unacceptable and should not be practised.
- c. All training should be documented and reviewed on a regular basis to ensure high standards are being applied.

3. Animal Breeding

- a. The facility should have a written collection plan that justifies the holding of species from a conservation, educational and welfare perspective.
- b. The facility should have a documented breeding programme that adheres to the overall facility collection plan.
- c. The breeding of an animal should only be undertaken if it is part of a recognised and cooperative breeding programme and the institution has the appropriate veterinary and husbandry expertise.
- d. The breeding of animals should not result in overcrowding, disease or stress.
- e. All breeding animals should be provided with appropriate nesting and nursing facilities as well as refuge from the public and aggression from co-specifics with off show facilities made available if needed.
- f. New born animals must receive expert veterinary care required and be appropriately integrated into social or compatible groups if relevant.

4. Animal Interactions, Presentations and Shows

- a. The health and welfare of animals in educational and interactive activities of an animal institution should be the utmost consideration in their selection, conditioning and usage. This will influence the type of animal, the design of the display facility, amount of time on display/interaction/activity, safe zones and the skills and training of the zookeeper or animal handler.
- b. Animal interaction and educational shows must maintain welfare and husbandry standards, before, during and after the event. These include but are not limited to:
 - Containment or back of house enclosures that provides species appropriate environmental choices, stimulation and variability;
 - Species-specific food and water intake and presentation appropriated to their nutritional needs and behavior;
 - Containment or back-of-house enclosures that are clean, hygienic and wellmaintained; and

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• Positive reinforcement on activities that exhibit only an animal's natural behaviour.

ANIMAL HEALTH

Key words: veterinary, health, euthanasia, biosecurity, quarantine, screening

1. Veterinary Health and Management

- 1.1. Veterinary Care
- a. Arrangements must be made for regular and documented veterinary inspections and care for the animals by experienced vets.
- b. Proactive veterinary care must include:
 - routine clinical examinations of all the animals in the Zoo;
 - documented treatment and preventative medication protocols of the Zoo;
 - health monitoring of animals (eg disease screening, regular blood, urine or faecal examinations, endoparasite monitoring, etc), as indicated;
 - safe and proper collection, preparation, handling and appropriate forwarding of diagnostic and other samples;
 - training of zoo personnel in health and hygiene;
 - ensuring that post-mortem examinations and any necessary laboratory investigations are carried out, including the submission of suitable samples for pathological analysis, whenever possible;
 - supervision of quarantine premises and other tasks required by law, or as part of good zoo veterinary practice;
 - nutrition and the development of diets;
 - the establishment of written procedures to be followed in the event of the accidental use of dangerous drugs; and
 - secure management of all medications, including appropriate documentation, control, storage, issuing, and destruction and disposal of such veterinary drugs in accordance with manufacturer's guidance and recommendations, and relevant local legislation.
- b. Veterinary facilities in animal institutions should include but must not be limited to quarantine sections, treatment sections, recovery sections, laboratory, among others.
- c. Effective and regular program for the control of ectoparasites and vertebrate pests must be established and maintained. Enclosures must be designed as to minimize predation by pests and parasites.
- d. Contraception may be implemented wherever there is a need for reasons of population management. The possible side effects of both surgical and chemical contraception, as well as the negative impact on behaviour, should be considered before a final decision to implement contraception is made. Regulations on animals classified as endangered will supersede this inclusion.
- e. Mutilation of any animal for cosmetic purpose, or to change the physical appearance of the animal, is not acceptable. Pinioning of birds for educational or management purposes should only be undertaken when no other form of restraint is feasible and marking animals



for identification should always be carried out in a way that minimizes suffering and under professional / veterinary supervision.

- f. Euthanasia should be carried out where an animal's physiological or psychological welfare is severely compromised and cannot be adequately improved through veterinary care and management. Euthanasia must be undertaken in a stress-free manner that involves a rapid and painless death and performed by personnel trained in the handling of species and the administration of euthanasia drugs. Internationally recognised drugs proven to ensure a pain-free death must be used. An ethical review should be undertaken for all euthanasia procedures and also include animals that are killed to feed other animals at the zoo. All institutions should have a documented euthanasia protocol which is reviewed regularly. Euthanasia may be controlled by local customs and laws but should always be used in preference to keeping an animal alive under conditions which do not allow it to be experience a high quality of life. Whenever possible a post-mortem examination should be performed and biological material preserved for research and gene conservation.
- g. No release-to-the-wild program shall be undertaken without the animals having undergone a thorough veterinary examination to access their fitness for such release. Following release, a thorough monitoring program should be established and maintained. The IUCN/SSC/Reintroduction Species Group guidelines for reintroduction should always be followed.
- h. Unless there are sound reasons not to do so, each animal which dies in captivity or during a release-to-the-wild program should be subjected to a post-mortem examination and a cause of death ascertained.

2. Biosecurity

Care must be given to establish a biosecurity protocol in an animal institution to prevent the introduction, transmission and spread of diseases among animals and the possible zoonotic potential it may create. All institutions should hold an appropriate infectious disease policy and protocols to mitigate the risk of disease spreading.

Biosecurity protocols will be influenced by the animal collection, layout of the zoo, location of the zoo, sources of food, source of water, waste management, environmental considerations, established zoonotic potential in the zoo's location, animal movement, and movement of zoo staff and visitors. Biosecurity protocols include ensuring that food and water sources are clean and safe, proper waste disposal system, hygienic practices for zoo staff and visitors, properly implemented preventative medical program, proper diagnosis and treatment of animals in isolated sections, investigation and recording of disease occurrences and quarantine and veterinary assessment in cases of animal transfer and releases. Biosecurity protocols should be recorded and maintained.

Biosecurity may be established in as simple as placing medicated foot baths, multiple wash areas and safe zones where animals can be segregated and human-animal interaction is minimized or disallowed. Biosecure areas include the entry and exit points of keepers, petting zoo areas, visitor facilities and veterinary facilities. Special care should be given to children under the age of five,



the elderly, pregnant women, and immunocompromised persons who may be of higher risk to zoonotic potentials.

2.1. Provisions for Waste Disposal

Provision must be made for the removal and disposal of animal and food waste, unwholesome food and water, dead animals, introduced rubbish from each animal enclosure to minimize vermin infestation and disease hazards, reduce odour and prevent the ingestion of harmful objects.

- 2.2. Provisions for Newly Acquired Animals
- a. All new animals must be kept in quarantine for 60-90 days for initial health screening tests. They can also be kept in isolation for as long as may be necessary to provide for its examination, acclimatization and, if necessary, restoration to good health before being placed in the company of other animals.
- b. Quarantine facilities should provide for animal's specific physical and behavioural needs.
- 2.3. Provisions for Dead Animals
- a. Provision must be made for the handling of a dead animal in a way that minimises the risk of transmission of infection or disease.
- b. Unless there is an arrangement for a dead animal to be quickly removed to Veterinary facilities outside the institution, facilities must be provided on the premises for conducting a post-mortem examination in a safe and hygienic manner.
- c. Provision must be made for material to be stored under refrigeration if an immediate postmortem examination is not possible.
- d. The facilities provided for post-mortem examination must include an efficient drainage system, washable floors and walls, and an examination table and include facilities for taking and preserving specimens. Instruments and equipment used for the storage of post-mortem material must not be used for any other purpose.
- e. Unless the remains of a dead animal are to be used for scientific or educational purpose or are offered to and accepted by an approved museum or other approved scientific establishments, they must be disposed of by incineration and if incineration is not possible by any other method adopted on accepted veterinary advice.

3. Record Keeping

- 3.1. Records must be kept and maintained of all individually recognisable animals and groups of animals in the institution contributing to a long term archive system.
- 3.2. Animal records must provide information that relates to the management, veterinary care, health and welfare of the animals.
- 3.3. Where possible, all animals should be individually identified by a marking that causes the animal no long-term harm and does not affect their natural behaviour.

4. Ethics Committee

All institutions should have an ethics committee where all welfare and ethical decision processes are referred too. The committee should be made up of relevant staff including, management, veterinary, keeping and educational staff.

POSITIVE MENTAL WELFARE

Key words: Staff expertise and behaviour, visitors

Managing Positive Experiences in Animals

Negative experiences and environments that cause individual animals fear and distress or prevent positive experiences such as contentment, play and rest, must be avoided. These include unnecessary handling or direct physical contact, inappropriate environmental design, fear through aggression or lack of refuge, and isolation for social animals. Management and husbandry practices must consider the specific species requirements to promote positive experiences throughout the lifetime of all animals within their care.

1. Staff Expertise and Behaviour

Institutions should ensure to:

- a. Provide staff training in animal welfare practices and management and ensure all members of staff become experts in their field of work; and
- b. Provide regular monitoring of staff behaviour and attitudes towards animal welfare and care.
- 2. Visitor Facilities

Visitor facilities at the minimum should include the following: adequately clean and wellmaintained toilet facilities, wash facilities, shelter and seating facilities, and first aid facilities.

Signages:

- a. Maps and directional signs showing the location of the animals on display and other visitor facilities should be in place.
- b. If rules have been drawn up to be observed by the visiting public, these must be conspicuously placed at the entrance of premises.
- c. Signs requesting the public to refrain from interfering with the animals and feeding the animals must be conspicuously placed at appropriate places.
- d. On each enclosure for animals on display there must be signs and illustrations that enable the visiting public to identity each species in the enclosure and provide information about the animals. The information to be provided should include aspects of population status range and habitat food habitats and physiological anatomical and behavioural adaptations to their environment.