

UNGULATE WELFARE WORKING GROUP

MidYear AZA 2019

Developing welfare indicators for ungulates

Standard 1.5.0: The institution must follow a written process for assessing animal welfare and wellness.

Explanation: This process should be both proactive and reactive, transparent to stakeholders, and include staff or consultants knowledgeable in assessing quality of life for animals showing signs of physical or mental distress or decline. The process should also include a mechanism to identify and evaluate the welfare/wellness impacts of significant life events or changes in the animal's environment as identified by the individual institution. Examples of life events/changes could include construction events, unusual weather events, noise intrusion, change in housing, or changes in animals exhibited with or nearby, etc. Animal welfare/wellness refers to an animal's collective physical and mental states over a period of time, and is measured on a continuum from good to poor.

1.2 What is welfare? An Introduction to the 5 domains, inputs and outputs and examples of welfare indicators

Animal welfare is broadly defined by AZA as the "Collective physical mental and emotional states over a period of time and is measured on a continuum from good to poor". The process should be proactive and reactive, transparent to stakeholders, include staff and/or consultants assessing quality of life for mental stress or decline, which should include mechanisms to identify areas of improvement.

Monitoring over time allows retrospective analysis and the ability to track early trends and allows a continuum, allowing individuals or groups to be assessed continually throughout their lifetime. Welfare is assessed as the animal might experience it on an individual basis. Even with optimum environment there could be less than optimal welfare and multiple aspects should be evaluated with evidence based measures.

It is important to note that 'stress' is normal, and demonstrates a physiological, psychological, and/or behavioral response to a perceived challenge, change or threat. The ability to respond to or cope with stressors is considered healthy, therefore not all stress is bad. Stress can be short-

term and acute to a real or perceived threat, or chronic, with repeated exposure and prolonged challenges that the animal cannot cope with, escape or control.

Measuring welfare includes inputs and outputs. Includes positive and negative components.

The original 5 Freedoms developed in 1965 were defined as the ability for animals to: stand up, lie down, turn around, groom themselves and stretch. Today, these have been significantly expanded to:

- 1) Freedom from hunger, thirst and malnutrition; 2) Freedom from discomfort, 3) Freedom from pain, injury and disease; 4) Freedom from fear and distress; and 5) Freedom to express normal behavior.

Within these categories it is important that animals also have the following 5 opportunities to thrive: Opportunity for appropriate feeding, opportunity to self-maintain, opportunity for optimal health, opportunity to express species specific behavior, and the opportunity to experience a range of beneficial emotional experiences.

WAZA has similarly defined 5 domains: Nutrition, Environment, Physical health, Behaviour and Mental domains, each being able to be measured positively and negatively.

SUMMARY FINDINGS FROM THE AZA ACCREDITATION TEAM – WHAT ARE THEY LOOKING FOR?

Common inspection issue is a lack of familiarity with the Animal Welfare Reporting process. General ‘sense’ of what the process is but team members do not know how to report or deal with a welfare concern.

New standards take time to work into the culture. There will be bumps in the road. All inspectors have their own interpretation of whether these assessments meet the standards. It will take time to standardize the expectations.

We need to standardize the way we assess welfare. We have the tools and resources. Incorporate existing documentation (feeding records, daily logs, water chemistries, etc).

Must be assessed annually. Suggestion to break down quarterly to spread collection out over the year. Reviewed during quarterly Animal Welfare Committee meetings. Increase frequency when specific animals have significant life events.

Concerns with documenting problems where there is no resolution (Eg: survivability through quarantine). Addresses important questions like ‘should we be doing this’, ‘why are we doing this’, ‘do we need to do this’, and helps to identify actions that need to take place to attempt to address it. Eventually address ‘are we keeping the right animals for our collection’?

1.3 Inputs and outputs

Inputs

Any and all historical and current conditions that the animal experiences and that can affect welfare are described as 'inputs'. An input is something that happens to an animal eg: Husbandry, individual life history, species natural history. Below is a list of possible inputs:

Husbandry: Complexity of environment

Nutrition: diet and presentation

Environment: exhibit design, sensory environment, social groupings, staff training/experience/attitude

Health: preventative health treatments

Behavior: training and environmental enrichment

Individual History: eg Wild caught

Natural history: Wild habitat, social systems, diet

Outputs

An output is something that can be measured that demonstrates how the animal is responding to the input. These measures are best on an individual basis and can be positive or negative.

Examples of outputs are shown below.

Negative outputs: Nutrition (lack of appetite), Environment (lack of shelter or thermoregulation), Health (chronically elevated stress hormone, mineral imbalance, etc), Behavior (abnormal or lack of interest), Mental (pain, fear, discomfort, etc)

Positive outputs: species appropriate blood work in health exams, species appropriate natural behaviors.

BRAINSTORMING INDICATORS OF UNGULATE HEALTH

Individuals or groups can be assessed

METRICS: group or herd can be a percentage of the group

NUTRITION

- a) Species appropriate nutrition, especially in mixed exhibits
- b) large groups (make sure everyone is getting a full ration)
- c)

HEALTH

- a) Body condition and weight
- b) Preventative and proactive health care program
- c) External physical attributes eg color changes in dominance, coat condition
- d) Foot health
- e) Normal movement and locomotion
- f) Appropriate health care training
- g) Reproduction
- h) Normal feces, parasite assessment

BEHAVIOR

- a) Normal and appropriate species naturalistic behaviors eg: Inter and intraspecies interactions
- b) Lack of stereotypy –
- c) Activity budget
- d) Responsiveness towards keepers –
 - a. Approach keepers for training, positive interaction
 - b. Negative approach, aggressive behaviour, refusal to shift
- e) Isolation (in herd species)
- f) ADR
- g) Appropriate food and nutrition
- h) Attitude – energy level, lethargy or hyper active, over excited
- i) Appropriate feeding behaviour

ENVIRONMENT

- a) Space utilization of enclosure
- b) Species specific provision of shelter and temperature regulation (eg concrete absorbs heat)
- c) Appropriate levels of sound and light (eg decibel reader)

MENTAL

- a) Level of engagement with general environment
- a) Resilience