BIAZA Welfare Policy

The intention of this policy is to provide a broad overview of the standards of animal welfare required within BIAZA collections, along with expected methods of welfare assessment and monitoring. There is no single, universally accepted definition of animal welfare, but broadly it refers to the state of the animal as perceived by the animal itself, with regards to its attempts to cope with its environment (Broom, 1988). As the science behind this policy evolves rapidly, it is expected that this policy will be reviewed after five years to accommodate updated standards of animal welfare.

BIAZA members:

1. MUST refer to the WAZA animal welfare strategy (Caring for Wildlife) and WAZA Welfare Goals if relevant.

2. MUST have an institution specific welfare policy that complements the BIAZA Welfare Policy 2023. Refer to the BIAZA Welfare Toolkit for guidance on writing a bespoke welfare policy. The welfare policy should apply to all animals in the care of or impacted by the activities of the institution including wild, domestic, native and pest species, whether on site, during transport, or collaborations with other organisations. All staff MUST adhere to the policy and are responsible for adherence by their associates e.g., contractors.

3. MUST utilise the five domains framework, considering both positive and negative experiences. The categories defined by Mellor's Five Domains model are Behaviour, Physical Health, Nutrition, Environment and Mental State. Assessing the fifth domain of Mental State is achievable through the assessment of each of the four physical domains and how they generate negative or positive affective (emotional) states.

4. a) Animal care staff MUST monitor the health and welfare of animals in their care on a daily basis.
   b) In addition to daily records, a bespoke formal and comprehensive Welfare Assessment MUST also be completed using input- and output-based indicators from across the five domains (refer to the BIAZA Welfare Toolkit for guidance, additional examples of welfare assessments can be found in the EAZA welfare assessment library). Any welfare

assessment template can be used but that template MUST include, as a minimum, the indicators listed in Appendix 1 and evidence to support the conclusions. This template must be used to clearly identify opportunities for improvement which are tracked via an accompanying Action Plan.

c) MUST have a plan for the assessment of the whole collection, which MUST consider all taxa and be reviewed annually.

d) MUST have a named member of staff responsible for animal welfare, at a minimum being a point of contact for welfare specific questions and correspondence from i) staff within the zoo ii) BIAZA and the BIAZA Animal Welfare Working Group. This may be a specific role or part of responsibilities of another role. This person is responsible for ensuring their institution is up to date on both BIAZA and UK/Irish mandatory welfare requirements and must be given the resource necessary to fulfil the role. See Appendix 2 for minimum requirements and potential CPD opportunities / resources.

e) MUST have a process for staff training and Continued Professional Development (CPD) related to animal welfare and the organisation's animal welfare policy. All staff (including external contractors etc.) are accountable for upholding the animal welfare policy and thus require a level of training suitable to their level of responsibility. See Appendix 2 for potential CPD opportunities / resources.

f) MUST have a process for reporting welfare concerns. All staff must be aware of the reporting pathway available to them, which could involve formal (documented) and informal (non-documented) reporting methods, both of which should allow for anonymity or confidentiality. All concerns must be followed up by the institution and actions documented. If staff feel the response does not address their concerns, they can raise this directly with the BIAZA Executive Office (please refer to BIAZA's Complaints and Whistleblowing Policy).

Ethical Review Processes

BIAZA members MUST have a recorded ethical review process. Issues such as social deprivation, reproduction and rearing, abnormal and harmful behaviours, use and sourcing of invertebrate and vertebrates as food, protecting animals from human activities, use of restraints, use of animals in research, euthanasia, etc. should be subject to an ethical review process. Any member of staff MUST be able to raise an ethical question for review.

Appendix 1: List of required assessment indicators

Domain 1: Nutrition		
Inputs	**Outputs**	**Evidence**
Assessments MUST assess: Species-specific diet plans, and individual diet plans. Species specific presentation plan for food – time of day, behaviours to be elicited	**Assessments MUST assess:** Diet consumption. Weight and body condition, species specific symptoms of malnourishment	Animal weight records Diet consumption records Diet sheet and plan Recorded observations of hunger/satiety related behaviours
Assessments SHOULD assess: Nutritional amendments based on animal's health and life status	**Assessments SHOULD assess:** Satiety and hunger-related behaviours	
Domain 2: Environment		
Inputs	**Outputs**	**Evidence**
Assessments MUST assess: Species specific environmental targets throughout the year. Shelter from harsh weather. Provision of drinking water and water for behavioural opportunities, water management for cleanliness. Substrate: for resting, activity and self-maintenance Natural habitat: 3D provision, complexity, meeting physical and behavioural needs, Provision of secure and safe enclosures. Backup for life support systems. Access to indoor / outdoor / off-show areas and resources available in each area Privacy from humans and conspecifics (and other stressors) Pest prevention Size of exhibit against minimum standards	**Assessments MUST assess:** Enclosure and resource usage e.g. indoor/outdoor areas, use of shelter, water, refuge spaces, furnishings and other environmental resources. Temperature: min/max, gradient across enclosure Lighting: light cycles, light spectrum, lux levels Ventilation: air quality, method, mould, condensation, dust, ammonia, air/DO levels Climate: humidity min/max, seasonal changes, rainfall Water temperatures, cleanliness, (water chemistry measures if species relevant)	Diary notes, photos, behavioural observations of environmental interactions noted in animal records Enclosure usage study, resource usage study, environmental records Records on outdoor restrictions due to weather or events Visual inspection of enclosure or plans and photos SOPs for transport
Assessments SHOULD assess: Habitat type vs opportunities for physical & cognitive challenge Transport procedures Species specific enrichment plan.	**Assessments SHOULD assess:** Noise/ acoustics Water quality and movement	

Domain 3: Health		
Inputs	**Outputs**	**Evidence**
Assessments MUST assess: Preventative medicine programme, Biosecurity procedures/protocols for both animals and humans.	**Assessments MUST assess:** Measures of body condition /muscle tone (and/or weight trends) for applicable species, Illness and injury occurrence and evaluation of treatment. Visual indicators such as skin/plumage/scale condition, eyes, noses, ears, feet, hooves, fins, appendages etc	Animal health and physical records Preventative care plan Biosecurity risk assessment QoL assessments Photo records Population numbers on ZIMS
Assessments SHOULD assess: QoL process and proactive health checks	**Assessments SHOULD assess:** Population size trends for large groups (where applicable) Reproductive success (where applicable)	

Domain 4a: Behavioural interactions with environment		
Inputs	**Outputs**	**Evidence**
Assessments MUST assess: Provision of furnishings for behaviour opportunities Provision of substrates, environmental parameters for comfort states Provision of privacy Provision of indoor / outdoor areas or variety of usable spaces (for some species)	**Assessments MUST assess:** Enclosure use Resource use Undesired behaviours	Photos, Behaviour studies, reports, student projects
Assessments SHOULD assess: Enrichment programme – goal based	**Assessments SHOULD assess:** Activity budget Behaviour repertoire / variety Enrichment provision	

Domain 4b: Behavioural interactions with conspecifics		
Inputs	**Outputs**	**Evidence**
Assessments MUST assess: Provision of privacy Resource duplication / availability Group composition Ability to separate / mix social groups	**Assessments MUST assess:** Occurrence of positive and negative social behaviours Rearing of young Undesired behaviours	Social behaviour studies

Assessments SHOULD assess:	**Assessments SHOULD assess:** Social proximity	
Domain 4c: Behavioural interactions with people		
Inputs	**Outputs**	**Evidence**
Assessments MUST assess: Provision of privacy VAE input assessment Risk analysis of unsupervised contact with public Veterinary procedures & handling/restraint	**Assessments MUST assess:** Negative indicators (fear, avoidance) Undesired behaviours	Training records Visitor impact studies VAE evaluations Event monitoring
Assessments SHOULD assess: Training programmes Public event protocols	**Assessments SHOULD assess:** Positive engagement with training experiences, Visitor response VAE output assessment	

Appendix 2: Welfare role requirements

- Must know institution welfare policy and welfare assessment process
- Must be familiar with the most recent version of the BIAZA welfare toolkit and associated guidance documents
- Must be familiar with BIAZA's welfare videos
- Should be familiar with EAZA free webinar series
- Should have a commitment to regular CPD for themselves and other staff in animal welfare science, be aware of and provide opportunities to attend relevant workshops and conferences.

CPD opportunities

Please note these suggestions are for guidance only. Where they refer to external resources, BIAZA cannot take any responsibility for their content and you should carry out your own due dillegence into their accuracy.

- Attending relevant BIAZA and external animal welfare conferences and workshops
- Contributing to animal welfare science
- Shadowing experiences / mentoring at other collections
- Joining relevant focus groups / working groups
- Wild Welfare free e-learning courses
- University of Edinburgh free course Coursera Animal Behaviour & Welfare
- Animal Welfare Research Network – free workshops and courses available
- EAZA Academy Courses including EAZA Introduction to Animal Welfare Assessments online course (EAZA members only)
- EAZA Animal Welfare Webinars
- EAZA Zoo Science Library

Appendix 3: Useful references *(include all hyperlinked in main policy text?)*

Beausoleil et al 2018 "Feelings and fitness" not "feelings or fitness" - The raison d'etre of conservation welfare, which aligns conservation and animal welfare objectives. Frontiers in Veterinary Science, DOI 10.3389/fvets.2018.00296

BIAZA Welfare Toolkit

Mellor et al 2020 The 2020 Five Domains Model: Including human–animal interactions in assessments of animal welfare. Animals, DOI: 10.3390/ani10101870

RCVS Ethical review for practice-based research

Russell & Burch 1992 The principles of humane experimental technique. John Hopkins Bloomberg School of Public Health

Links to other BIAZA policies and statements
Close Contact
Animal transfers
Conservation