

GENERAL NOTES:

Where ever a red triangle is in the corner of a cell, hover over to see help notes.
 Enter only one score per row.
 If a need is not relevant to your species, explain why in the comments and mark as score 3 because there is no welfare issue.
 Targets should be evidence based are to be used to explain what the ideal specification would be and why.
 In the 'stressors' section the target is what the animal currently experiences and how well it copes with it.
 When deciding your score, consider what time frame you are assessing. Normally this would be since the last audit or past twelve months. .

		Score	0	1	2	3
			Animal requires long term intervention and normal behaviours are prevented.	Repeated interventions occur, natural behaviours may be restricted	Occasional short term intervention required, most normal behaviours occur	Animal is consistently in peak condition, no intervention required
HEALTH & PHYSIOLOGY		Points for consideration				
Physical condition	Variations in body condition and visual appearance can be an indicator that the resources available to the animal are not equal to its needs. Consider weight trend over time (e.g. twelve months); use a 1-9 point scale for BCS (or state if alternative scale is used); consider growth trend for juveniles or breeding females, mobility and general demeanour. Are skin/plumage/scales glossy and appropriately coloured, or dull, damaged and sparse? Consider variations due to breeding season and regular moults.					
Injury history	Minor scratches and swellings that occur through normal behaviours and require no treatment are unlikely to affect animal welfare. Consider instead the occurrence of injuries caused by conspecifics, the environment or those that are self-inflicted. Will they may reoccur in the future, cause pain or reduction in normal behaviours, or require intervention by keepers or veterinary staff?					
Illness history	Even minor illnesses can compromise welfare by causing feelings of malaise, lack of appetite, reduction in social behaviours, thermal regulation etc. Interventions for illnesses may include medication, separation from the social group, or removal to a different enclosure. Consider how these interventions affect normal behaviour patterns. (If medication is given in normal food presentation this is unlikely to compromise welfare).					
Other	This may include internal / external parasites, foot care, dental care, nutrition of other aspects of health not covered above. Internal parasites may affect physiological welfare by increasing appetite, reducing immuo-response or causing discomfort etc. External parasites may cause physical discomfort, reduced fitness resulting in reduced breeding opportunities and behavioural changes etc. Also consider bacterial burdens, protozoa etc.					
ENVIRONMENT		Target: range of factors that facilitate coping within the environment, or promote positive feelings. These may be natural (wild behaviours) or normal (within captivity).				
			Optimal conditions are not available	For long periods (weeks or months) optimal conditions are not available	For short periods (hours or days) optimal conditions are not available	Animal always has choice to be in optimal conditions
Internal/External or both?	When does the animal have use of this part of the exhibit? Is use restricted /allowed during opening hours, events, overnight, in poor weather or when breeding?					
Temperature range	Consider <u>average</u> day/night and summer/winter temperatures in native range as this is what the animal will have evolved to tolerate without abnormal physiological stress. There may also be published recommendations within captivity, or allowances for young, old or breeding animals etc. Some species may require additional information about basking temperatures and heat gradients. NB, even within native ranges animals may experience extremes of temperature that they cannot cope with. Focus on the range within which they function normally.					
Water source and humidity	Consider presentation and availability of drinking water, bathing / swimming needs and humidity range that the species has evolved to utilise or cope with. Note information relating to volume, depth, temperature or chemistry parameters as appropriate. Consider what is 'needed' by the animal rather than what would be preferred, e.g. the animal needs water depth to be deeper than body size in order to swim (locomotion opportunities are dealt with as a behaviour).					
Light	Consider length of day: night cycle, seasonal variations and LUX levels. You should also consider optimum UV ranges and exposure. Is a gradient available? Use wild habitat information as a guideline where possible as this will be what the animal has evolved to tolerate.					
Surfaces	Consider the surfaces in contact with the animal. For some species this may be perching rather than a floor substrate. Think about whether the animal needs a wet/dry, firm/soft, abrasive/smooth surface in order to maintain good foot/body condition. If a species has no contact with substrate (e.g. fish or invert species) then mark as score 3 because there is no welfare issue.					
Cover and privacy	This may relate to conspecifics or perceived predators / prey. Consider what type of cover has the animal evolved to use, or what would be available to it within its native range. Cover may include foliage, substrate, water or perhaps a large solitary territory where conspecifics are rarely encountered. In the event of a perceived threat, what is the natural coping mechanism for this species?					
Spatial complexity	Spatial resources may be two or three dimensional. Consider what level of complexity the animal would naturally encounter. Does the animal move vertically through its habitat as well as horizontally? Some animals may have evolved to survive in varied or complex habitats such as forests, other may be simpler such as open water.					
BEHAVIOUR		Target: range of factors that facilitate coping within the environment, or promote positive feelings. These may be natural (wild behaviours) or normal (within captivity).				
			No ability to perform behaviours	Ability to perform behaviours is restricted in terms of variety or duration	For short periods (hours or days) the animal is unable to perform a full range of behaviours	The animal always has the choice to perform a full range of behaviours
Social	What is the normal social dynamic for this species, are there published recommendations for captive animals? What sort of social/anti-social behaviours would the animal display? How much of their time is naturally spent with conspecifics? Consider methods of social interaction, tactile, olfactory, visual etc. that allow the animal to avoid confrontation or build social bonds.					
Foraging & Feeding	How much time is naturally spent foraging by this species? Think about all aspects for foraging and feeding behaviour from searching to consuming food. How often would the animal eat and during what part of the day?					
Species specific	Think about species adaptations, and also variations on behaviour during different seasons, stages of life or breeding. You may also note any behaviours observed specifically in captivity, but not in the wild. Hand reared animals may have different behavioural needs than parent reared animals.					
Sensory	What are the sensory capabilities of the species and how are they used? Does the animal have the opportunity to utilise these within the exhibit? You may need to consider the absence of a sense and how the animal copes within those limitations (e.g. if an animal is deaf or blind what adjustments are needed so that it can cope?)					

Locomotion	What type of locomotory behaviours has the animal physiologically evolved to perform and for how long or how often?				
STRESSORS	<p>What are the current requirements within the captive environment? Use the scoring to assess how well the animal currently copes with these, and in the comments explain your score.</p> <p>Consider parts of standard husbandry and management routine - such as shifting indoors/outdoors, weight checks, catch-up for equipment changes etc. that are not covered by other questions.</p>	Animal cannot avoid stressor. Abnormal or negative behaviours are displayed when stressor is present. Animal harms self when carrying out behaviour.	There are times when the animal cannot choose to avoid the stressor and / or abnormal or negative behaviours are sometimes observed. Behaviours cause harm or will do if they persist.	There are times when the animal cannot choose to avoid the stressor, but no identified abnormal or negatives behaviours are observed, or behaviours casue no physical harm to animal at present time.	Animal always has the choice to avoid the stressor. No negative or abnormal behaviours are displayed.
Husbandry and management	Consider parts of standard husbandry and management routine - such as shifting indoors/outdoors, weight checks, catch-up for equipment changes etc. that are not covered by other questions.				
Visitors	How is the animal viewed, how long for and how often? Discuss in comments if any negative or abnormal behaviours are seen when this stressor is present. Any undesired behaviours from the visitors that cause stress or unusual animal behaviours.	e.g. 360° viewing and has no off show access during its normal activity period.	During 10-4 the animal cannot access off show areas, but choice is provided 4pm-10am when evening events occur. Repetitive non-functional behaviours observed.	During busy periods when all viewing areas are occupied, normally has access to areas without visitors.	e.g. one viewing window, permanent off show access, viewing limited to 10-4pm, animal is active outside of this period.
Events	Is the animal used for keeper experiences, animal encounters, evening events, shows etc.? How often and for how long? Does the animal have to perform? Are events varied or repetitive?				
Transport	How frequently must the animal be transported to another location? How is this managed? Does the animal participate in voluntary training, or is it darted or manually caught by net?				Animal is trained for voluntary transport.
Veterinary	What type of veterinary interventions does this animal require, how frequent are they and how they managed? Are they voluntary, do they require transport to another area and separation from conspecifics? Inc. feather clipping.				
Sensory	Is the animal sensitive to noise, light, vibration etc.? Are these stressors be present in the environment? How are they currently managed?				
Competition	Does the animal experience competition from conspecifics, or other species? How is it managed? Are pest species competing with animal for food or shelter?				
Repetitive behaviours	Are any other repetitive behaviours observed (not already mentioned above)? These may be natural or unnatural behaviours and originate from a known or unidentified stressor. Use this box to write any anticipated behaviours such as feeding anticipation, pacing before slides are moved to allow indoor/outdoor access etc. Use comments box to explain your score and any repetitive behaviours that are not normal or functional.	Repetitive behaviours replace functional behaviours such as feeding and sleeping.	Repetitive behaviours occur to an extent that normal behaviours are reduced, such as foraging and social interactions.	Occasional repetitive behaviours seen, but never replace normal or beneficial behaviours	No non-functional repetitive behaviours observed.
OTHER	Add any additional comments not mentioned elsewhere.				
SCORE	All scores are added and presented as percentage. A summary of scores for each audit section and a pie chart displaying the number of categories score 0,1,2 or 3 is at the top of the form.				
REFERENCES	Where possible include a reference for your target information. These may be from husbandry guidelines, ZSL documents, scientific journals, websites or personal communications. To save time and space note a number e.g. ① after you have written your target info and then fill out your full references at the bottom of the form. These do not have to be written using the Harvard referencing system. Any note will be fine. Number symbols can be accessed from the 'Insert' menu, then the symbol selection.				
	E.g. website ① http://www.iucnredlist.org/details/9404/0 E.g. Book ② Animal Welfare 2nd edition, Appleby & Mench. Personal communication ③ J Smith, London Zoo, personal communication.				