

# Behaviour and Environment Evidence Base

## Bear Ethogram reliability quiz (Answer sheet)

42 possible points



Name:

Date:

Instructions: Before you start, review the bear ethogram in detail, noting the specificity of behavioural definitions. While taking the quiz, do **not** have the bear ethogram or ZooMonitor open.

(1 point)

- 1) Which behaviour is described below?

Bear places nose within 5 cm of inedible object and sniffs or licks the object.

- a. feeding/foraging
- b. investigate
- c. play
- d. none of the above

(3 points) 1 point for each correct answer, -1/2 point for each incorrect selection.

- 2) Highlight **all** behaviours that involve standing bipedally on hind legs
- a. Rearing
  - b. Cage climb
  - c. Urinating/defecating
  - d. Pirouette
  - e. Keeper interaction

(1 point) 1/2 point for each answer

- 3) Fill in the blanks for the behavioural definition of grooming:

Scratching using paws or licking of the pelage.

(1 point)

- 4) Which behaviour is the highlighted behaviour in the following scenario?

A panda is locomoting and sniffing the ground and reaches a toy which they begin to rub their face and neck on and proceed to roll around on, making contact with their shoulders

and upper back. The panda then stops rolling and begins rubbing their paws all over their face, head, and neck. The panda then stands up, squats down, and rubs their anogenital region on the toy.

- a. Scent anointing
- b. Investigate
- c. Solitary play
- d. Grooming
- e. None of the above

(1 point)

5) Which behaviour is the male displaying in the following scenario?

Male and female are within the same enclosure. Male approaches female while she is standing and he begins to sniff and lick the anogenital region and proceeds to tap the females hip and push her with his muzzle.

- a. Scent marking: genital rubbing
- b. Courtship
- c. Mating
- d. Social play

(1 point)

6) What is defined as proximate?

- a. 1-3 body lengths apart
- b. 1 or less body lengths apart but not in contact
- c. 2 or less body lengths apart but not in contact
- d. 3 or less body lengths apart but not in contact

(2 points) 1 point for correct true/false, 1 point for explanation

7) True or false (explain answer): If a bear stands up and takes only two steps to reach a log to rest on, the two steps count as locomotion.

True, although there were only two steps, the bear locomoted with an intended goal to rest on the log which makes it locomotion.

(2 points) Deduct as you see fit

8) Describe how you may distinguish social play and contact aggression.

Any description where they explain how contact aggression is forceful while social playing involves inhibited biting, pawing, chasing, etc. Could also mention that there should be no attempts to escape in social play and that individuals may alternate between subordinate and dominant positions during play.

(1 point)

9) How many counts of drinking are described below?

Panda walks to pool, lowers head, and begins drinking water. Panda then lifts head looking around but not locomoting and lowers head again and begins drinking. Panda walks away from pool, rests for 30 seconds and walks back to pool, lowers head and begins drinking water. Panda walks away and feeds on bamboo.

- a. 1
- b. 2
- c. 3
- d. 4

(1 point)

10) Which behaviour is described:

A giant panda walks around bamboo while sniffing it by placing the nose within 5cm of the bamboo.

- a. Locomotion
- b. Investigate
- c. Feeding/Foraging
- d. None of the above

(2 points) 1 point for correct true/false, 1 point for explanation.

11) True or False (explain answer): To be considered pacing, a bear must trace the same exact route at least 3 times consecutively.

False, quasi-pacing is also considered pacing where the bear can alternate between a limited number of paths or any case where a pattern emerges.

(4 points) 1 point for each correct answer, -1/2 point for each incorrect selection

12) Highlight all that describe resting behaviour:

- a. Bear lies with eyes closed, motionless
- b. Bear is lying down while scratching its side with hind leg
- c. Bear is lying down and shifts into another position, also lying down
- d. Bear is lying down and shifts into a standing position on all four legs but does not locomote
- e. Bear lies inside a hammock while licking the edges of the hammock
- f. Bear is standing on all four legs, motionless

(2 points) 1 point for correct true/false, 1 point for explanation

- 13) True or false (explain answer): If a bear squats down and defecates then stands up for 3 seconds and squats down again to urinate, it is measured as one count of urinating/defecating since the two were not separated by more than 5 seconds.

False, every time the bear gets out of the urinating/defecating position, it is a separate count. The number of counts is not determined by time.

(2.5 points) 1/2 point for each correct answer

- 14) What is the sequence of behaviours described in the following scenario. Circle/highlight the behaviour from the options below for each numbered stage.

(1) A bear is walking on all four legs in an area of a pool where the water reaches shoulder height. (2) The bear is now deeper in the pool, paddling along, occasionally touching its hind legs briefly along the bottom surface of the pool with its head above the water. (3) The bear reaches the centre of the pool where it treads water, stationary in one spot. (4) The bear dives into the water, submerging its full body, paddling down not touching any surface until (5) it reaches the bottom of the pool and pushes off the bottom of the pool to reach the surface of the pool again.

- (1) (a) Locomotion, (b) Swimming, (c) Resting  
(2) (a) Locomotion, (b) Swimming, (c) Resting  
(3) (a) Locomotion, (b) Swimming, (c) Resting  
(4) (a) Locomotion, (b) Swimming, (c) Resting  
(5) (a) Locomotion, (b) Swimming, (c) Resting

(1 point)

- 15) Which behaviour is described in the following scenario:

A bear is manipulating a ball which was added to the enclosure that morning with its mouth and paws.

- a. Enrichment item interaction: Play  
b. Enrichment item interaction: Investigate  
c. Solitary play  
d. Investigate

(3 points) 1 point for each behaviour described

- 16) Describe two behaviours that fall under 'scent marking: other' and one behaviour that falls under 'scent marking: rubbing'.

Scent marking other (any two): handstand urination, urination with stomping, stomp walking, leaving track holes with forceful, spinning steps, bark biting and scuffing, branch and trunk breaking.

Scent marking rubbing (any one): rubbing head/neck/back/shoulders against object, rubbing nape and back while on hind legs, rubbing flanks while on all four legs.

(1 point)

17) There are two bears that share an enclosure. The first bear is being held in a holding area. The second bear does not have access to this holding area and is in the main enclosure, 3 body lengths away from the first bear, facing away from the first bear. How would you score proximity for the second bear?

- a. In contact
- b. Proximate
- c. Distant
- d. Solitary

(2 points) ½ point for each correct answer

18) List the four kinds of keeper interaction you can score.

Direct feed, training, attention, negative

(2 points) 1 point for correct true/false, 1 point for explanation

19) True or false (explain): If a child is banging on a ceiling-to-floor display window and a bear is lying motionless directly on the other side of the window where the child is, facing away from the child, this should be scored as visitor interaction: negative.

False, the bear is ignoring the visitor, and attention on the visitor must occur to score visitor interaction.

(2.5 points) ½ point for each correct answer

20) What is the sequence of events described in the following scenario? Circle/highlight the behaviour from the options below for each numbered stage.

A mother bear approaches her cub and (1) lifts the cub with her mouth. She carries the cub to their den and proceeds to sit down placing cub on her belly. She then (2) repositions the cub to another spot higher on her belly. She proceeds to (3) lick the cubs anus and then (4) nibbles the cubs back. The cub then (5) begins to suckle on the mother's nipple while the mother licks the cub's legs.

- (1) (a) Nursing cub, (b) Grooming cub, (c) Lick cub anogenital, (d) Holding cub, (e) other maternal

- (2) (a) Nursing cub, (b) Grooming cub, (c) Lick cub anogenital, (d) Holding cub, (e) other maternal
- (3) (a) Nursing cub, (b) Grooming cub, (c) Lick cub anogenital, (d) Holding cub, (e) other maternal
- (4) (a) Nursing cub, (b) Grooming cub, (c) Lick cub anogenital, (d) Holding cub, (e) other maternal
- (5) (a) Nursing cub, (b) Grooming cub, (c) Lick cub anogenital, (d) Holding cub, (e) other maternal

(1 point)

21) Which behaviour is defined below:

Rubbing or gathering insulation materials with forefoot inside den or bringing materials to den.

Den construction/maintenance (does not have to include both construction and maintenance)

(1 point)

22) True or False: An observer should score mating when the female bear is actively avoiding being mounted. As long as the male mounts, regardless of the female's receptivity, the observer will score mating.

False

(1 point)

23) Which of the following is not an agonistic signal

- Sumo strut
- Head-low threats
- Urination on a tree
- Growling/Roaring toward other bear

(3 points) ½ point for each correct match

24) Matching the following abnormal/stereotypic behavioural definitions with the behaviour names

- Repetitively rearing within short intervals (<30 sec). May occur in the same spot and appear as though they are investigating the air or looking somewhere.
- Self-inflicted physical harm, such as biting or chewing the tail or leg, or hitting the head against a wall
- Moving back and forth without locomotion. Must include at least one full back-and-forth motion.
- Vomits and reingests vomit repeatedly
- Standing on hind legs or sitting and looking through keeper door/window. Will be repetitive and seemingly in anticipation of a resource or husbandry event. Can be incorporated into pacing behavior.

f. Swings head upward or to the side in a swinging movement

c Rocking

d Regurgitation/Reingestion

a Stereotypic rearing

e Look through keeper door/window

f Head-toss

b Self-mutilation