

## Brown Bear Behavior Study

\*\*A note on animal behavior studies and ethograms: Animal behavior studies and ethograms take hours and hours to compile, with endless amount of data to analyze! Just because a bear was swimming for 80% of the time when you were watching him, doesn't mean he will swim all the time!

### Focal Sampling: (circle which bear is being sampled)

Sadie (smallest of the lightest colored bears)



Kenai (medium sized bear with medium brown coloring and a darker face)



Haines (largest and darkest colored bear)





**Brown Bear Behavior Observation Sampling**

<b>Time:</b>	<b>Behavior (Circle one/Describe Other)</b>
Initial: 0 Minutes	Forage   Locomote   Rest   Other
1 min.	Forage   Locomote   Rest   Other
2 min.	Forage   Locomote   Rest   Other
3 min.	Forage   Locomote   Rest   Other
4 min.	Forage   Locomote   Rest   Other
5 min.	Forage   Locomote   Rest   Other
6 min.	Forage   Locomote   Rest   Other
7 min.	Forage   Locomote   Rest   Other
8 min.	Forage   Locomote   Rest   Other
9 min.	Forage   Locomote   Rest   Other
10 min.	Forage   Locomote   Rest   Other
Total Time:	Forage: _____ minutes
	Locomote: _____ minutes
	Rest: _____ minutes
	Other: _____ minutes
	<b>Percentages: (number circled / total minutes) ex: 3 locomote / 10 mins = 30%</b>
	Forage %:
	Locomote %:
	Rest %:
	Other %:

**Ethogram**

**Foraging:** When a bear is searching for food or eating. Could be digging up buried food items, catching fish, eating berries, looking for food on the ground, etc.

**Locomote:** When a bear is moving. A bear could either be walking, running, climbing, swimming, or chasing another bear.

**Resting:** When a bear is lying down or sleeping. More specifically, resting includes when a bear is not moving.

**Other:** When a bear is behaving in a way not described above. For example, when a bear is interacting with another bear, or when a bear is interacting with the public.







### Overall Analysis:

1. What was the most common activity of the Brown Bear that you observed? Why do you think this is?
2. Is this a natural behavior? How can you tell?
3. What types of enrichment were found in the exhibit?
4. What types of enrichment would you design for the Brown Bear?
5. Looking at the map of the Brown Bear exhibit below, make a guess as to what section of the exhibit the bear spends the most time in. (Use lettering in the picture or sections. IE; front section or front left section) Explain your reasoning. Design and propose a study to establish what section the bear spends the most time in.

## Answer Key

### Analysis of Focal Sampling

3. Which bear did your focal bear interact most with? Why do you think this is?

**Kenai and Haines probably interact the most because they are close in age and also both males. The boys probably interact with Sadie the least because she is female and younger (also she does not swim as much as the other two do.**

4. Were the interactions between bears more aggressive or more affiliate? Why do you think this is?

**More affiliate. The bears have established dominance already so there is no need to be aggressive. The bears have also been living in the same enclosure for a while, so they are not strangers to one another.**

**Answer Key:**

<b>Overall Analysis:</b>
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1. What was the most common activity of the Brown Bear that you observed? Why do you think this is?

**Answers may vary... Why could be related to the time of day. (For example, bears are active in the early morning and afternoon.) Why could also be related to the bear. (For example, Kenai and Haines love to swim, Sadie likes to rest most of the time and doesn't like water.)**

2. Is this a natural behavior? How can you tell?

**Most behaviors observed will be natural. The reason for this is because the keepers try to encourage the natural behaviors through certain types of enrichment. If the bear was not partaking in natural behaviors induced by the keepers, it would become stressed and unhappy in its environment. This could easily be observed by the way the bear is acting through pacing, pulling out his hair, aggression, etc.**

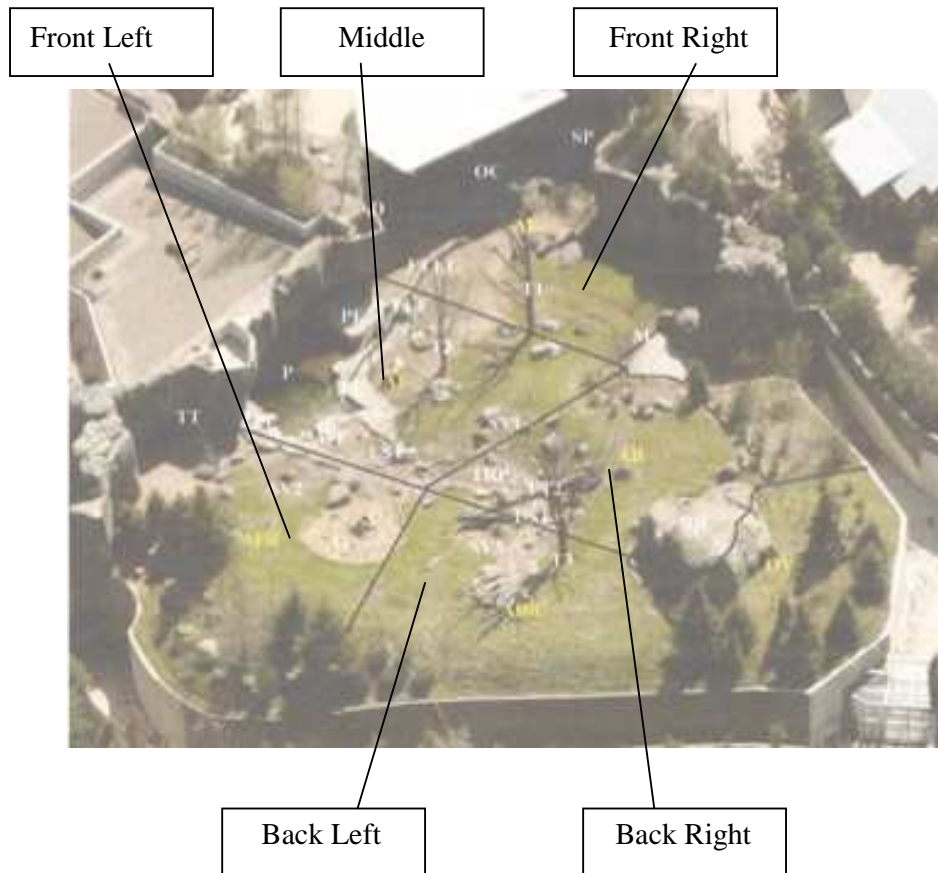
3. What types of enrichment were found in the exhibit?

**The exhibit itself was created for enrichment. There is a pool of water, lots of logs and rocks for the bears to climb. The terrain of the exhibit is always changing and not flat, making it interesting. There is a geyser, and a water to represent the bears' natural habitat. The keepers add food in various places of the exhibit each day to keep the bears interested. (ex. Fish in the pond)**

4. What types of enrichment would you design for the Brown Bear?

**Answers may vary, but this could include types of pools or balls or maybe even wood logs for the bears. As long as it is something a bear would naturally use in its environment and it is safe for the bear to have, it is acceptable. This could also be a type of food item.**

5. Looking at the map of the Brown Bear exhibit below, make a guess as to what section of the exhibit the bear spends the most time in. (Use lettering in the picture or sections. IE; front section or front left section) Explain your reasoning. Design and propose a study to establish what section the bear spends the most time in.



I predict that the bears would spend the most time up front by the window because there are more enrichment items including the water. This is also because the exhibit was designed this way in order to attract the bears closer to the public for easier viewing. A study for examining the bear's habitat could include a focal sample of a bear and record every minute which section the bear is in according to the map. Also, an event sampling could take place and when a bear moves from one part of exhibit to another part that could also be recorded.