

## SUCCESSFUL CAPTIVE BEAR INTRODUCTIONS: WORKING WITH A BEAR'S EXPECTATIONS, 2006

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One of the most stressful events that a bear can experience in captivity is the introduction of another bear into his/her living space. In the wild, bears can usually choose to interact (or not) with other bears based on environmental, familial, or safety considerations. In captivity the choice is an animal management decision often based on a compromise between cost, space demands and the bears' wellbeing. Most stressors for captive bears derive from the absence of personal choice; the inability of a bear to express his/her deeply rooted genetic urges.

The captive community recognizes this and has been evolving towards behavior-based husbandry over the last two decades working with an animal's expectations rather than opposing them. The overall procedure for a successful bear introduction is the same for all bear species. The details vary depending on specie-specific needs.

Prior to a bear introduction a realistic introduction plan and time line must be developed and discussed by all staff involved including caregivers and managers. The plan must take into consideration the bears' specie, age, sex, natural/veterinary/and personal histories, and enclosure limitations. The objective of planning is to lessen stressors. Flexibility must be built in to accommodate problems that arise. Unaccounted for issues will arise!

The most successful introductions are made during a time when the bear would naturally expect to meet other bears. As a rule, non-breeding adult introductions are best made near the end of breeding season. At this time the highly-charged, intense breeding behaviors have waned but the bears are still in the meet'n'greet mode. Bear biologists have observed breeding bears and non-breeding bears lingering together after peak breeding season. In captivity, bears often show interest in meeting opposite and same sex bears at this time. If the introduction is between a cub and a female, the female should have reached sexual maturity. Even so, this may not guarantee success of locking into some vestiges of maternal behavior if she has been human raised and not mother raised.

It is vital to have a comprehensive environmental enrichment program in place for a successful bear introduction. Enrichment events such as scatter feeds, puzzle-feeders, and clean bedding and branches to nest build with, help to take the stress off of the introduction by allowing the bear an opportunity for displacement behavior. Bears often go about their business turning over logs or feigning interest in some insignificant thing in the dirt while they consider their options in the face of another bear. It is a non-aggressive behavior designed to take the stress off the situation. If the bears are in an environment where they have nothing else to interact with then the attention remains on the introduction and the stress builds.

The first step in the introduction is to give the bears nose-to-nose access to each other separated by fencing. Giving the bears enrichment activities at this time allows the bear to casually observe how the other bear behaves while appearing non-aggressive and busy himself. Staff must be making behavioral observations at this time. If the bears are at the fence jaw snapping and grabbing at each other, then clearly this introduction will take some time and serious reconsideration. The reason for their aggression must be identified before they are put together.

Prior to being given access to each other all bears must know every hiding place and exit in all of the enclosures used. This can be done before or during the nose-to-nose introductions. This familiarization with the entire terrain should go on for a series of days depending upon the speed and attention to detail of the investigating bear(s). Negative enclosure features such as dead ends where a bear can be cornered, or positive enclosure features such as exits, pools, and platforms can be highlighted by the placement of food treats to ensure the attraction the bears' attention.

There are only two motivators for mammals; food and reproduction. Food is of primary concern and reproduction is of secondary concern. The reproduction issue is either the cause of the introduction or it can be negated by neutering either or all bears. The attraction of opposite sex bears is often used to advantage in non-reproductive introductions such as the interest of intact females towards a vasectomized male.

The availability of food is of primary concern to every bear at all times. Therefore it is vital that each bear understand that food is plentiful and that there will be enough food to allow for another bear to join the group. On any given day captive bears are feed according to how many bears are currently in that enclosure. The bear comes to understand that x amount of food appears everyday which is enough to feed those currently in the enclosure but not enough to feed additional bears. A week before the intended introduction the bear (s) must be given additional amounts of food presented in enrichment style such as scatter-feeds. This usually coincides with the nose-to-nose introductions. Foods must be plentiful and interesting. Generally each bear will eat until he/she is super-satiated. As the week passes the bears come to understand that this food availability may not be a one or two day fluke. It appears that this could continue. Bears must never be introduced on an empty stomach! It is better that they be temporarily overfed. Once the introductions are complete and the bears settle into a peaceful co-existence the food amounts can be returned to normal but continue to be presented in enrichment style to promote food gathering and preparation behaviors.

Introductions are most successfully done in the morning to allow bears the whole day to acclimate to each other. Before they are put together each bear must be overfed and the enclosures to be used for the introduction must be supersaturated with foods that the bears love (not just an overabundance of the usual omnivore chow and the same old apples and carrots) and enrichment objects and events. In the wild, when food is overly plentiful bears can be very tolerant of each other as long as they have the opportunity to respect each other's immediate feeding space. For example, grizzly bears meeting at salmon spawning runs, black bears berry picking in the fall, brown bears and polar bears in feeding vicinity of each other at a beached whale carcass or sadly any specie at the town garbage dump!

The bear that is the least aggressive is usually given access to the introduction site first otherwise the dominant bear might not let the subordinate bear into the introduction enclosure. The subordinate bear who has likely begun to eat must be given notice that the new bear is about to be given access to the same enclosure. Some facilities train their bears so they can give fair warning that the bear gate is about to be opened. "Opening door" is a standard phrase often used. If the bears have not been trained then drawing attention to your intentions by rattling the gate and calling to get the bear's attention can work.

Staff must have equipment such as fire hoses ready for use in the event of a serious fight but such devices should be used only in extreme emergencies. The bears will be working out a living agreement often negotiated in short skirmishes through jaw snapping, posturing, guttural growls, smacking or by purposefully ignoring each other. Separating the bears at night to prevent injury to the bears has been practiced at some facilities. The problem with this practice is that the bears do not learn to get along during the day. They learn that they only have to get through the next 8-10 hours with the new bear and then they can be by themselves again. This practice prolongs the period of time it takes for the animals to settle into a serious hierarchy agreement. It is often more productive to have staff observe the bears all night.

Medications to 'take the edge off' of the introduction have also been used. This practice leads to improperly introduced bears where the stress levels are prolonged and hierarchy issues are not properly negotiated. The problem is apparent by the presence of constant mini skirmishes, jaw snapping and arguing in the group. This is often an underrated, very dangerous situation that can lead to the death of an animal up to one or two years down the road. Tension in the group simply continues to build until a bear snaps and attacks. The use of mentally dulling medications are often considered when the feeding and reproduction concerns of the bears have been overlooked and remain unaddressed.

A successful low stress introduction procedure sets a tone for a positive living arrangement between the bears.