Husbandry and Medical Training

Husbandry and medical training are about gaining the animal's voluntary cooperation in various activities and procedures. Therefore, training these types of behaviors should never include "tricking" the animal. For example, if you need to give an injection, you never hide the needle behind your back and then try to quickly stick the animal when he is not looking. Or, if you need to lock the animal into a holding area, do not wait by the door and shut it when the animal isn't looking. The animal learns nothing from being "tricked", except to not trust you. So, the fundamental principle of husbandry and medical training is that nothing is hidden; nothing

is done as a surprise to the animal. Instead, the animal is formally desensitized to every part of the behavior that may be frightening or uncomfortable. Only then will you have an animal that is truly cooperating with you voluntarily.

There are three basic components of husbandry and medical training: shaping position, extending the duration or length of time the animal remains in position, and training the animal to tolerate the specific stimuli associated with the procedure. Successfully training these components and gaining the animal's voluntary cooperation in husbandry behaviors and veterinary procedures requires the following elements:

- Skillful application of desensitization and acclimation techniques
- Completion of a set of basic behaviors which facilitate management, access, and control of animals

Acclimation or Habituation

Acclimation or habituation is a passive process in which an animal gradually overcomes a situation it normally avoids by prolonged exposure. For example, placing food in the shift and allowing the animals to become accustomed to it over time. There is no direct intervention on the part of the trainer, and there is no active and direct pairing of positive reinforcers with the 'scary' event when acclimation is used, which is different from desensitization. Acclimation is highly effective for getting an animal accustomed to a shift area, transport box, squeeze cage, etc, but is not as effective when the animal is very fearful of the situation. Because acclimation does not specifically form the association between the 'scary' thing and positive reinforcement, it may take longer, especially if animals are quite tentative about a situation.

Desensitization

Desensitization is one of the most important techniques a trainer will use. Animals can be desensitized to husbandry activities and invasive veterinary procedures, new enclosures, unfamiliar people, negatively perceived people like the veterinarian, novel objects, strange noises, and so on. Through desensitization, animals learn to tolerate scary, uncomfortable, and/or uncomfortable stimuli. In basic terms, desensitization is a process designed to "train out" or overcome fear and to "train in" tolerance. By pairing positive rewards with any action or object that causes fear or uncertainty, that entity or stimulus slowly becomes less aversive, less scary, and less stressful. *Effective desensitization relies on two elements: precise bridging, and good judgment in determining where the process should start and how fast to move through the steps to the completed behavior.* When working on any desensitization

training, keep in mind that the pain and discomfort of the procedure is not diminished – the needle stick will always hurt – but the fear and anxiety associated with receiving the injection will be significantly reduced. Therefore, repeatedly or frequently piercing the skin (as 'practice') when training injection or blood draw should not be done. The animals need to understand what is happening and what it feels like, but there's no point in making a 'pin cushion' of them.

Precise bridging occurs at the exact moment that the animal experiences the stimulus. For example, if you are training a bear to accept a needle for a blood draw, the bridge should occur at the *moment* of the stick (and as the behavior progresses, for duration or holding for blood to be taken). The feeling of a needle piercing the skin will always cause some discomfort and pain, therefore, to make that experience or stimulus less frightening, steps to gradually train the full process are used and include using a blunt needle to simulate the stimulus which is directly paired with precise bridging and high value reinforcers. To do is effectively, remember to bridge at the exact moment the animal feels the blunt needle touch the skin, and then follow with a big reward. If the bridge is too early, the bridge has no meaning. If the bridge is too late, the animal may be reinforced for reacting to the needle or reinforced as the needle is pulled away. As the animal experiences the blunt needle repeatedly without painful consequences, then they begin to learn tolerance and show reduced fear responses. Then when the skin is actually pierced (the first time with a very small gauge needle) the animal is more likely to tolerate the small amount of pain and discomfort without excessive fear.

The second keys to effective desensitization is being *able to determine the starting point, and how fast to progress*. Using the same example, if an animal had bad experiences with a needle, syringe, etc., they may be more frightened just at the sight of the syringe. If this is the case, the first step may be to simply show the syringe, bridging at the exact moment the animal looks at or perceives the syringe. After doing this several times, the next step may be to move the syringe towards the animal a small amount, and during the movement, the bridge occurs. How quickly progress can happen is determined by the animal's tolerance and comfort level. How big each step is, depends on how the animal reacts. If the animal shows too much fear with the syringe close, it may be necessary to spend more time reinforcing it slightly further away or even looking at it from a distance. When the animal maintains his/her position as you move the syringe closer, it's likely you can advance to the next step (e.g., moving it very close). It's helpful to develop ways to determine if progress is appropriate for the animal - if the animal remains nervous or frightened, you may need more time or smaller steps, or if the animal appears bored or disinterested, you may be moving too slowly.

Desensitization applies to all aspects of the behavior, including necessary personnel and equipment. In many cases, two people will be required to conduct procedures. Therefore, the animal must be desensitized to having a second person present and when required, allowing that person in close proximity, touching, and using equipment. It is often critical to specifically desensitize the animal to the veterinarian or vet staff, since those individuals need to monitor health on a regular basis, perform all procedures, and treat health problems as they occur. Many animals are frightened of the veterinarian/ vet staff and therefore extra effort may be required to overcome this fear. This process requires the full cooperation of the veterinarian and vet teams since numerous "practice" sessions may be required.

Both desensitization and acclimation are effective training techniques, but the significant advantage of

desensitization is that the trainer is directly and specifically reinforcing the animal's behavior. It can be advantageous to use both techniques synergistically. For example, use acclimation by giving the warthog access to the squeeze cage allowing him to explore it on his own, and add some food treats in and around the cage to encourage exploration and extend the duration he may remain in it. To use desensitization, train the warthog to approach and gradually enter the cage using small approximations AND specifically reinforcing those movements. This is a good approach to initiate movement into the cage. Closing in and squeezing will most successfully accomplished using desensitization as it assures the warthog understands what's happening and is a willing participant in the process.