



Voluntary Blood Draw

Asiatic Black Bears (*Ursus thibetanus*)

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Animals Asia

Thousands of Asiatic black bears are kept in cages no bigger than their bodies on bile farms across Asia, sometimes for as long as 30 years.

These bears (CITES App. 1) are milked daily for their bile either through crude metal, latex or Perspex catheters implanted into their gall bladders or via a permanent hole (fistula) drilled into the abdomen and gall bladder. This is known as the “free-dripping” technique. All the extraction techniques cause the bear’s constant and extreme pain.

Most of the bears arrive in deplorable physical and psychological condition, having endured years of pain and malnutrition. Many also have spatial and behavioural deprivation problems. Surgery is required to remove their infected gall bladders and to address numerous other health concerns. Problems related to bile farming that we commonly encounter include bar biting, head rubbing, emaciation, abdominal hernias, snare scars, missing limbs (indicating poaching), heart disease (likely associated with poor nutrition & husbandry)

Many bears have their teeth cut or smashed out by the farmer to make them less dangerous, or otherwise the teeth are severely worn or broken due to stereotypical ‘bar-biting’. Almost 70% of the bears have had dental disease of some kind.

Over half the bears have some kind of mobility impairment with cases of spondylosis of the spine and osteoarthritis of the elbows and stifles.

About 20% of our bears have been diagnosed with visual deficits, some blind, some visually impaired, with Retinal degeneration likely due to malnutrition and lack of dietary Vitamin E

Background

Bamse an Asiatic black bear rescued from a bear bile farm in 2009 was diagnosed with a renal condition. As a result he receives a specialist renal dog food diet, is not fed grapes, raisins and ordinary dog food, and receives regular medication. In order to manage his condition the veterinary team requires regular blood from Bamse for analysis. Before embarking on this training programme, the only way this would have been possible would have been through regular health checks and anesthetic.

Advances in captive animal care have meant that animals can live a more stimulating life and we can enhance the care we give them. Training – both formal and informal plays an integral part in how we manage the bears. Informal includes the conditioning of the bears to our recall whereby we can ring the bell and call the bears into the dens and also out to the enclosures. This enables us to not only clean and enrich enclosures but also assess the bears' feeding, monitor their health and assess them up close. We weigh all bears on site 4 times a year, some more frequently if we are monitoring their weight. We also conduct counter –conditioning sessions in both weigh cages and transport cages after a health check. If any bears are identified as requiring desensitization to either cage, then Bear Managers will conduct desensitization training by following a step by step plan. Central to all training is positive reinforcement.

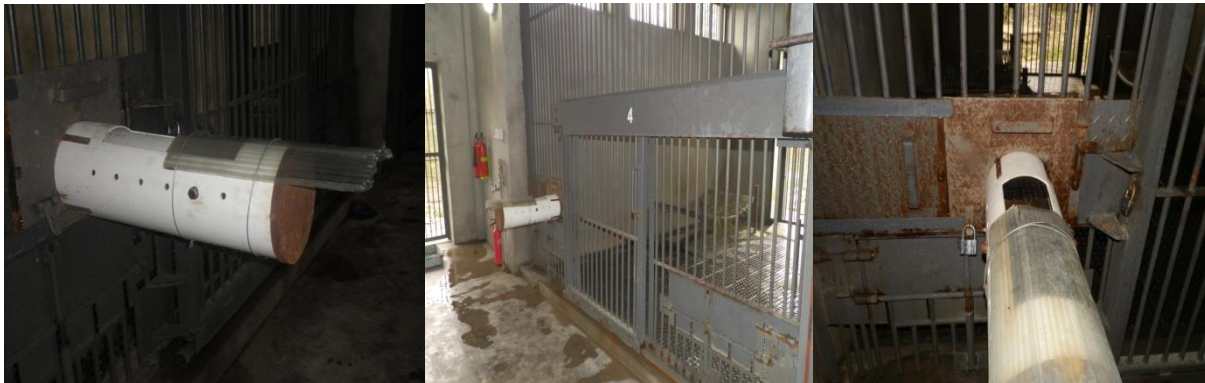
One formal training programme we embarked upon at our China Bear Rescue Centre was to train Bamse for live blood draw collection with the view that, in the long run, his condition and treatment could be managed through the least invasive method.

The Plan

Central to how we manage bears is integrating veterinary and behavioural management and Bamse's training was no exception to this. Before training even began there was discussion between veterinary and bear management team as to what would be needed and how this would be achieved. Advice was sought from experienced trainers and research was conducted into types of sleeves used for blood draw training.

Consideration was also given to the den environment and how this could be adapted for the blood draw. Our maintenance team was brought on board to help build a simple PVC tube that could be fitted securely to the front of the den for the paw present. Consideration was also given to maintaining the safety of the trainer. We decided Bamse's fore limb would be the focus of the training and an adjustable bar was fitted within the sleeve which he could reach

with his fore paw. Size and dimensions were approximated based on the desired position of the bear so that he could comfortably place his forelimb into the sleeve whilst sitting and resting.



Sleeve in position in preparation for training – this is removed at all other times

The Training

In the early stages of his training the aim was to establish a rapport with him. This involved recalling him from one den to another, or from front to back of a den, using his name as a verbal cue and letting him know when a session ended with a verbal ‘finish’ cue. During this period food reward preferences were identified and these rewards were ranked so that as the training developed they could be utilized as the training became more complex.

Next a bridge association and a whistle was introduced as a training tool.



The next stage was to introduce a target to training and for Bamse to get used to initially targeting with his nose and then holding his position on a verbal cue ‘hold’. Once Bamse was comfortable with the target, focus was given to him targeting to different positions and varying the duration of the ‘hold’. The next, tricky, stage was shaping his behavior with the target stick and getting him to touch the stick with a paw using a series of verbal cues including ‘paw’,

'touch' and 'hold'. In addition to food rewards Bamse was given lots of verbal praise as he met the increasing criteria. Initially this involved bringing the target stick to his paw and getting him used to being touched, then building on the duration. Later he needed to get used to being touched with different items like gauze. Eventually he was at the stage where the target work could be around the opening to the sleeve and then placing the target in the sleeve so he would need to reach into the sleeve to touch the target.



Once Bamse was comfortable with this, the target stick was placed on the other side of the bar so that he had to reach and this was to encourage him to hold the bar. This continued until he was comfortable doing this and we could increase the duration. Modifications were made to the sleeve using a piece of wood that was cut to fit the shape of the inside of the sleeve so that when he reached the bar he could comfortably rest his fore limb in the sleeve. It also allowed safer access to his forearm for the later blood draw.



Sleeve with the wooden insert

As Bamse got more comfortable with reaching for the bar and the increased duration, the target stick started to be phased out and by touching the sleeve cover and using the verbal 'paw' Bamse learnt to place his paw in the sleeve without a target stick.



As he became consistent with this, the Vet Nurse who would later be involved with drawing blood was introduced to the sessions. Initially she would be present, quietly standing nearby and gradually her involvement was increased as Bamse was introduced to clippers and later a swab and needle as well as the Vet Nurse wearing a head torch.

Initially he was just shown the clippers during a session, then he was touched with them, increasing the duration, then they were switched on during the session until he was comfortable enough for his forearm to be clipped.

The next step involved swabbing his forearm and when Bamse was comfortable with this, then introducing a blunt needle to his forearm and increasing the pressure to the area before finally inserting a needle.

By taking each step gradually, rewarding and praising Bamse as each step was achieved, we were able to reach the point where Bamse would comfortably have the needle inserted into his forearm. Initially when the needle was first inserted, Bamse on occasions moved his fore leg. When this happened we did not try with the needle again in that session, but ended the session on a high note with his paw in the sleeve and being well rewarded.

Training sessions were also kept varied to keep things novel. Some sessions were simply husbandry sessions including a recall, target, paw present and hold.

One of the biggest challenges faced with this training was finding a vein and actually drawing blood. Bamse was comfortable with the needle being inserted a long time before blood was drawn. From a Vet Nurse perspective, there was the opportunity to practice on anesthetized bears in routine health checks and also simply warming her hands before a session and attempting to draw blood. When blood was finally drawn however, it happened with ease and Bamse by this stage was so used to having a needle inserted in his fore arm that he did not react at all.



Paw present – forepaw in position

Swabbing the area

Preparing to insert the needle



Inserting the needle & reward

Conclusion

Integral to this training process has been good communication between all involved through every step. Secondly maintaining records of each training session has been so important not only to document each stage but also to chart progress. These records will be also serving as a guide to future trainers for Bamse or other blood draw training with other bears.

Not forgetting the importance of rapport building and getting to know Bamse himself; understanding his likes and dislikes and being aware of what works for him and what doesn't. It has also been really important working out what times best suit Bamse with his training but also within the husbandry routine of the bear house he lives.

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