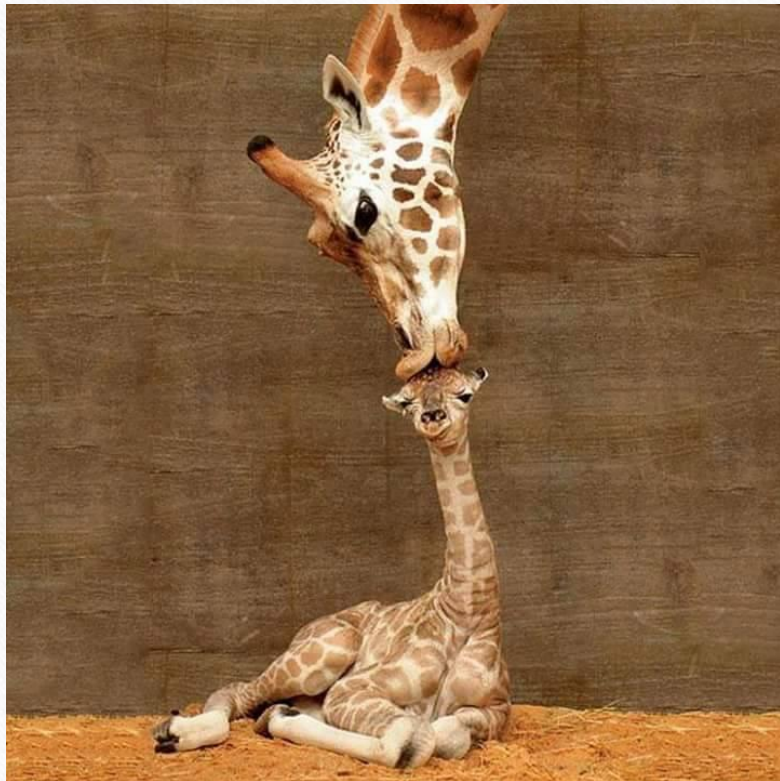


OH BABY!

The How's and Why's of Training Voluntary Blood Draws and
Ultrasounds on Pregnant Giraffe

Blood Draws



This behavior is very beneficial for multiple reasons, but today we're just going to focus on pregnancy.

Blood Draw- What it looks like



Blood Draw-Target Stick

HOW We Trained it:

- 1.) Present target stick...most giraffe investigate it. When they touch their nose to it, Bridge and Reinforce!
- 2.) Build DURATIONS on the target stick. Giraffe holds nose on for one second, bridge and reinforce. Two seconds, bridge and reinforce. Five seconds, bridge and reinforce.
- 3.) Give them some “easy ones” in between the hard ones. Easy ones are worth one reinforcer, hard ones worth three or four....they’ll start to learn the longer they do it the bigger the reinforcer!

Blood Draw-Target Stick



WHY We Trained It:

- 1.) Communicates to the giraffe where we want their head to be, and that we want it to be still.
- 2.) Durations on the target stick allow us to keep their head in one place for an extended period of time.
- 3.) If the giraffe pulls its head away during the needle poke, we can ask them to come back to the target stick

Blood Draw- **Touch**

HOW We Trained It:

1.) Use the target stick to guide the giraffe into the trainer's hand. Cue "touch" right before they make contact, bridge and reinforce.

OR

2.) Ask the giraffe to target, cue "touch" and the trainer moves the hand into the giraffe. Bridge and reinforce when trainer touches giraffe.

Blood Draw-Touch

- TWO WAY COMMUNICATION-They always have a choice
 - We present the target stick. The giraffe lets us know that it is ready for the “touch” cue by putting its nose on the target.
 - They cue us that they are ready, then we cue touch.
 - We have found that if we touch them when they aren’t expecting it or paying attention (AKA Giraffe Land!) they tend to walk away.

Blood Draw- **Touch**

HOW We Trained It:

If the giraffe twitches its skin, flaps its ear, flares its nostrils, etc... (any behavior that would let you know that it is uncomfortable), take a step back in your approximations until the giraffe looks comfortable again. Move forward with smaller approximations and high rates of reinforcers.

Blood Draw-Touch

WHY We Trained It:

- The “touch” cue gives them information that they’re about to be touched. If they don’t want to participate, they can walk away. It’s their choice (unless it’s life or death).
- By asking them to hold still for touching, this allows vet staff to feel around for the vein and hold off before the needle is seated.

Blood Draw- Touch

- Very rarely do any of our giraffe “enjoy” being pet or touched. We need to build positive history with reinforcers in order to let us touch them.
- CMZoo does not have giraffe that are conditioned to have touching or petting used as a secondary reinforcer. We have to teach them to hold still while we work on touching them, and make it worth it by offering high value reinforcers. We don't use touching as a reinforcer.

Blood Draw- **Poke**

Once the giraffe is allowing us to touch them, we start working on “Poke”.

HOW we train it:

- We do not reinforce in between touch and poke. We cue “Touch”, if they stay we cue “Poke”. Bridge and Reinforce with a huge reinforcer (a handful of crackers).
- We apply pressure with a capped needle, then keys, forceps, or anything that is sharp. We build durations on the time spent on poking.

**Side note, we do not use blunted needles. We don't want to apply too much pressure and break through the skin.*

Betty Says “No”...No Reinforcer



Betty Says “Yes”...Lots of Reinforcers



Blood Draw-WHY



- We used this behavior to check for health during pregnancy. We also used it to track progesterone levels throughout the pregnancy.
- We are pretty sure we were able to get blood right around ovulation, and were able track progesterone levels throughout pregnancy.

Blood Draw-Why

- Better able to track breeding
- Less aggression from male if we stop putting pregnant females in with him
- Better estimate birth date



Blood draw-why



We were able to use the blood draw behavior to bank plasma in case we had issues with our calves.

Blood Draw- Full Behavior



Transabdominal Ultrasounds



HOW We Trained It:

- Started with a “Line Up” behavior (giraffe parallel to bars)
- Train “touch” along abdomen

Ultrasounds-Line Up

HOW We Trained It:

- 1.) Get the giraffe into a position where you can access its side (safely).
- 2.) Counter condition being touched on its hip
- 3.) Apply pressure, Bridge and Reinforce
- 4.) Hold hip target close to hip, allow giraffe to apply its own pressure, bridge and reinforce





Ultrasounds-Line Up

HOW We Trained It:

5.) Fade out pole, use verbal cue “move in”.

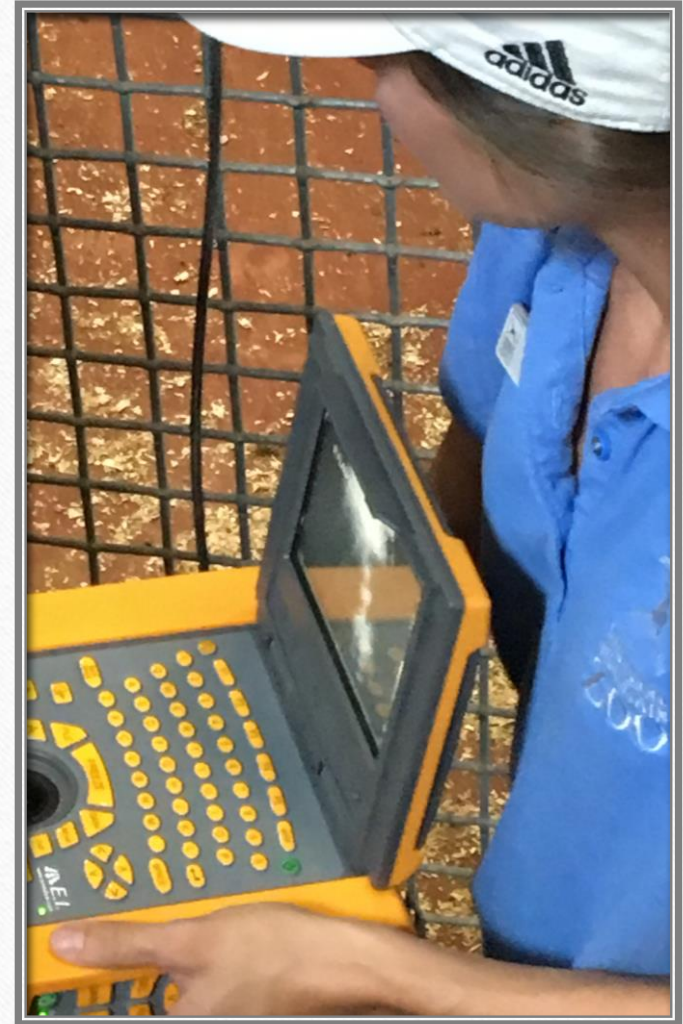
6.) Generalize this to different areas/spaces

Transabdominal Ultrasound



Ultrasounds: Why

We have used the ultrasounds to confirm and monitor pregnancy.



Ultrasounds-WHY



Vet staff has been able to see placental attachments increase in size and visualize parts of the fetus

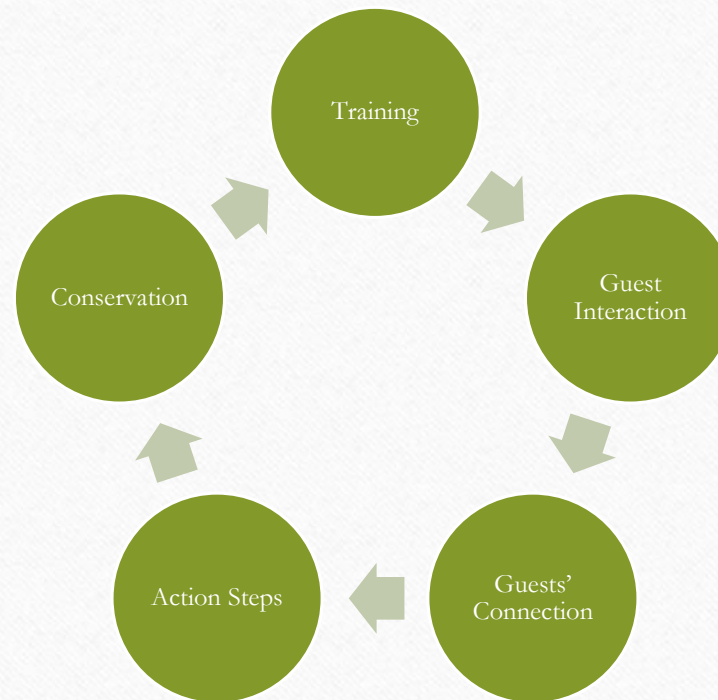
Cheyenne Mountain Zoo's Training Program

Goal to do 80% of training in front of our guests

- We recently built an Outdoor Training Area, as well as blood draw ports, to help accomplish this goal
- Our chute is off exhibit, this presents challenges in some ways, but also creates opportunities for us to train while “thinking outside the chute”. We also feel this helps the giraffe to have more choice and control during its training sessions.

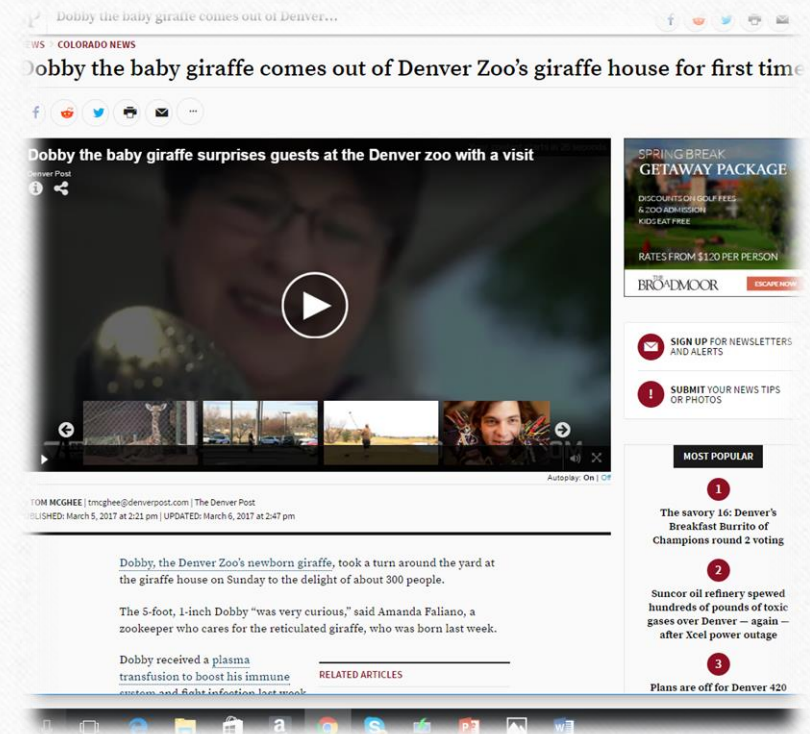


Impact on Conservation



Impact on Conservation

- Blood Draw/Blood Banks created an opportunity to work together for Dobby the giraffe calf
- This brought in a lot of media attention; most stories highlighted the plight of wild giraffe
- Media attention also highlighted what zoos are doing to help giraffe



Blood Banks

- We know a lot of facilities have already trained their giraffe for bloodwork, this could be one way we can work together to help each other out
- If you (and your giraffe!) have an interest in participating in this initiative, please contact:

DeeAnn Wilfong at dwilfong@cmzoo.org

Giraffe Care Workshop



We are also hosting our 3rd Giraffe Care Workshop October 9-13th

- Applications due April 1st
- Hands on training with our herd (**blood draws**, hoofwork, conservation, etc)

THANK YOU!

- Bob Chastain-CEO
- Tracy Thessing- Director of Animal Collections
- CMZ's Vet Staff- especially Dr. Liza Dadone and DeeAnn Wilfong
- Jeremy Dillon, Rick Hester, Jason Bredahl
- Hemo Solutions
- The rest of Cheyenne Mountain Zoo for supporting our giraffe training program