

University of Rhode Island

DigitalCommons@URI

Senior Honors Projects

Honors Program at the University of Rhode
Island

5-2018

Veterinary Training Practice in Pinnipeds

Samantha Hatfield
shatfield@my.uri.edu

Follow this and additional works at: <https://digitalcommons.uri.edu/srhonorsprog>



Part of the [Animal Sciences Commons](#)

Recommended Citation

Hatfield, Samantha, "Veterinary Training Practice in Pinnipeds" (2018). *Senior Honors Projects*. Paper 643.
<https://digitalcommons.uri.edu/srhonorsprog/643>

This Article is brought to you by the University of Rhode Island. It has been accepted for inclusion in Senior Honors Projects by an authorized administrator of DigitalCommons@URI. For more information, please contact digitalcommons-group@uri.edu. For permission to reuse copyrighted content, contact the author directly.

Veterinary Training Practices in Pinnipeds

Samantha Hatfield



Husbandry Care of Animals in Zoological Facilities

- What is it?
 - Health Care Behaviors
- Why we do it?
 - Most efficient & less stressful on animal
- How we do it?
 - Through positive reinforcement training
- Examples?
 - Layout
 - Open Mouth
 - Ultrasound
 - Weights
 - Blood
 - Injection
 - Endoscopy
 - Radiographs



Training

- Positive Reinforcement
 - Reinforce correct behavior
 - Primary & Secondary Reinforcers
- Relationship with trainer
- Desensitization
 - Aversive stimulus becomes neutral or positive



Avila's Story

- Rescued from California
- Rehabilitated at the Marine Mammal Center
- Taught how to eat
- Deemed non-releasable
- Northern Fur Seal
- 3 years old
- 19 Kg
- Now resides at Mystic Aquarium



Avila's Husbandry Training

Steps Taken to begin training husbandry behaviors:

1. Develop relationship with trainer
2. Train basic targets
3. Train tactile behavior
4. Desensitization to objects & veterinarians
5. Trained individual behaviors
 - Flipper Present
 - Injection & Blood Draws in Layout Position
 - Eye Exam
 - Toweling



Develop Relationship With Trainer

- How is this developed?
 - Time
 - Food
 - Enrichment

- Trainer knows animal's behavior & capability



Train Basic Targets

- Target = Touch Muzzle
- Train to follow targets
- Targets used to focus animal & train husbandry behaviors



Train Tactile Behavior

- Pair with primary reinforcement (Food)
- Train for all parts of body
- Second person tactile



Desensitization to Objects and Veterinarians

- Acclimate Avila to different people & objects
- Eliminate any aversiveness



Husbandry Behaviors Focused On

- Flipper Presents
- Injections and Blood Draw Behaviors in a Layout Position
- Eye Exams
- General Desensitization



Flipper Presents

- Use targets on muzzle & flippers
- Tactile on flippers
- Second person tactile
- Flippers prone to cuts & scrapes
- Need to be examined frequently



Injections and Blood Behavior with Layout

- Layout Behavior
 - Easiest for veterinarian & safest for veterinarian and animal
- Desensitization
 - Trainer touching of hind end and hind flippers
- Simulation of a Injection or Blood Draw
 - Simulate a real needle by use of the end of a paper clip
 - Poke around site where injection or blood draw will be



Desensitization Steps for a Blood Draw from Flipper



Injection Video

<https://youtu.be/45bLQYMN0Ps>

Eye Exam and Drops

- Desensitize to many eye exam instruments
- Eyes get cataracts or degrade as animals age
- Important because life expectancy is higher in facilities



Toweling to Improve Fur

- Unique to Avila
- She came to Mystic with matted fur
- Could not stand cold temperatures due to her fur during her first winter at Mystic (2016-2017)
- 30 degrees or below Avila was housed inside
- Fur Seals 2nd densest fur coat of marine mammals
- Water does not penetrate skin in fur seals due to its density
- Avila could be susceptible to penetration due to the condition of her fur
- Due to the toweling behavior Avila's fur improved & no longer is brought inside at temperatures below 30 degrees
- Avila was exposed to colder temperatures this past winter (2017-2018) & was successful



Behavioral Record Sheet: Avila

Date: 29-Jul-17

Session: 2	Diet %: 20	Flipper	Location: p1
Time: 930	A B C D R O Ns	Comments: okay for brushing, good flipper presents with holding flipper	
Trainer:JC	Rating: 3		

Date: 27-Aug-17

Session: 2	Diet %: 55	Basics	Location: p1
Time: 1315	A B C D R O Ns	Comments: good for flipper presents with second person tactile	
Trainer:JC	Rating: 3		

Date: 28-Oct-17

Session: 3	Diet %: 40	Desense	Location: p1
Time: 1145	A B C D R O Ns	Comments:great picture poses allowing vet to touch flipper	
Trainer:JC	Rating: 3		

Future Goals

- Participate in all Husbandry Behaviors Voluntarily
 - Eye Exams
 - Tactile & Desense
 - Toothbrushing
 - Radiographs
 - Blood Draws
 - Annual Injections
 - Eyedrops
 - Ultrasounds



Acknowledgements

A special thanks to Mystic Aquarium, along with the animal trainers, Jesse Ciletti, Erin Gibbons, and Carey Richard for all their help with my presentation, and for allowing me to represent the marine mammals at Mystic!

In addition, a special thank you to my honors project sponsor for all of his help and advice all semester!

And of course a huge thank you to Avila!

Thank You!



Work Cited

All data, training information, & pictures were collected from Mystic Aquarium and the trainers I worked alongside of.

Brando, Sabrina. “Advances in Husbandry Training in Marine Mammal Care Programs.” *International Journal of Comparative Psychology*, vol. 23, no. 4, 1 Jan. 2010, pp. 1–16.

Clark, Fay E. “Marine Mammal Cognition and Captive Care: A Proposal for Cognitive Enrichment in Zoos and Aquariums.” *Journal of Zoo and Aquarium Research*, vol. 1, no. 1, 17 Dec. 2012, pp. 1–6., doi:10.1111/izy.12005.

Laule, Gail Ellen. “Positive Reinforcement Training and Environmental Enrichment: Enhancing Animal Well-Being.” *Journal of the American Veterinary Medical Association*, vol. 223, no. 7, pp. 969–973., avmajournals.avma.org/doi/abs/10.2460/javma.2003.223.969.

Meijer, Gerald. “Husbandry and Care of Marine Mammals.” *Zoos Print Magazine*,
www.zoosprint.org/ZooPrintMagazine/2015/August/ZPM_Aug_2015_Full_magazine.pdf#page=18.

Ramierz, Ken. “Marine Mammal Training The History of Training Animals for Medical Behaviors and Keys to Their Success.” *Veterinary Clinics: Exotic Animal Practice*, vol. 15, no. 3, 2012, pp. 413–423., doi:https://doi.org/10.1016/j.cvex.2012.06.005.

Wallach, J.D. “The Management and Medical Care of Pinnipeds.” *The Journal of Zoo Animal Medicine*, vol. 3, no. 4, Dec. 1972, pp. 45–72., doi:10.2307/20094164.