Big Cats Initiative: Fighting for the Felines

Kaite Phillips: PVC Member

A little over seventy years ago, 450,000 lions roamed freely predominately in Africa and India; but by the early 2000s, only just over 20,000 lions remained free. Their drastic disappearance has been attributed to three factors: overuse of pesticide, excessive poaching, and exponential loss of “living space”. It is predicted that by the 2020s, wild lions will have almost disappeared. Dereck and Beverly Joubert, part of Explorers-in-Residence, along with the National Geographic Society decided to take a stand and founded the Big Cats Initiative. The Big Cats Initiative is a volunteer-based program that promotes in-the-field conservation projects and awareness. “We no longer have the luxury of time when it comes to big cats,” says Dereck Joubert.

Anyone can help Big Cats Initiative by donating on the National Geographic Website, and other ways to help are available on the Big Cats Initiative webpage. You can even help during Halloween! Big Cats Initiative has pumpkin carving stencils, lion costume ideas, and activities to help spread the word about lion conservation. Dereck Joubert says, “They are in such a downward spiral that if we hesitate now, we will be responsible for extinctions across the globe. If there was ever a time to take action, it is now.”
WANTED: Food Animal Veterinarians

Chloe Goodwin: PVC Member

You must love your job when you have to pull a calf at 3 in the morning.

Food animal veterinarians commonly work with livestock and large animals, like cattle, swine, sheep, goats, llamas, and alpacas. They work with both producers and government organizations to control zoonotic diseases, maintain the health of our herds, and make sure that our food is safe. Food animal vets are usually based in rural areas where they can service a large region of ranches and farms. What they do ranges from palpating to determine pregnancy, suturing up wounds, performing necropsies, diagnosing diseases, and so much more.

It’s not new that veterinary students pursuing a career specializing in food animal medicine are few and far between. It is estimated by the American Veterinary Medical Association (AVMA) that “less than 2 percent of veterinarians practice exclusively on food animals, just over 6 percent of veterinarians practice predominantly on food animals, and 7 percent of veterinarians have mixed animal practices”\(^1\).

There are many possible issues that are to blame for the lack of interest. For instance, one of the biggest concerns of a newly graduated veterinarian is paying off their student loan debt. It is estimated that the average veterinarian owes up to $130,000 after graduation\(^2\). It’s hard to make a living in a rural area when a large animal veterinarian needs to service a large area mostly out of his truck. This can rack up a lot in miles and gas costs. Not only is a large portion of their practice visiting on-site, but the amount of money spent on companion animals compared to livestock is hard to ignore. Last year, Americans spent $50.96 billion on pets and $13.59 billion on veterinary care alone\(^3\).
It is a necessity for a veterinarian to perform a neuter on a dog, but castrating a young bull can be performed without veterinary supervision. Many experienced ranchers can administer general vaccinations and pull calves with ease, so veterinarians are often used in emergency situations. Moreover, clinic hours are never concrete. You will never know when a steer will tear up his leg in a fence or a ewe is experiencing a difficult time lambing. The hours can be long, the work is usually dirty, and can take a toll on your health. The physical labor of palpating, bending over, and general everyday work has forced one Dr. Roberto Margo, a rural veterinarian in Texas, to have surgery on his arms, shoulders, and back in conjunction to experiencing rheumatoid arthritis. All in day’s work.
Because the need for a safe food system is the United States is critical, the government and veterinary schools have started to offer financial incentives. The United States Department of Agriculture have developed a loan repayment program that overs $25,000 a year to veterinarians that pledge to serve in an assigned area for at least 3 years. Colorado State’s veterinary school enacted the Food Animal Veterinary Career Incentive Program (FAVCIP) to encourage students to look into food animal medicine. It reserves 5 spots in its veterinary class to students that have meet undergraduate requirements, like participated in two food animal externships, and filled out the proper supplemental application.

Food animal veterinarians are a crucial piece in ensuring the health of livestock and the wholesomeness of our food supply as well as a crucial player in human, animal, and environmental health. Their work is tough but it is rewarding. Farmers and ranchers truly appreciate the work food animal veterinarians do. And when the work is doing something that you love to do, then it’s not really work.
Dr. Scott and the Rattlesnake Threat

Andrea Arterbury: PVC Member

Dr. Scott Chamberlin is an Emergency and Critical Care Medicine resident at CSU’s Veterinary Teaching Hospital. All residents at the VTH are involved in research as part of the program requirements. Dr. Chamberlin, along with other veterinarians at Fort Collins Veterinary Emergency and Rehabilitation Hospital, is researching the use of lasers in the treatment of pain and edema associated with rattlesnake bites.

Dr. Chamberlin became interested in this project because of the large number of rattlesnake envenomation emergencies that come through the doors of the VTH. He is also interested in exploring alternative treatments because of the high cost of antivenom.

The Western Prairie Rattlesnake is native to Colorado, and fortunately for pet owners this species is not as dangerous compared to species found in other parts of the country. However, immediate treatment is still necessary if you believe your pet may have been bitten by one. Of North American snakebites, 20-25% is “dry bites” with no venom injected, so the emergency staff at the VTH must confirm that the pet was envenomated. This is determined via a quick (5-10 minute) blood test. Should the test confirm envenomation, the owners are given the option to participate in the study.
This has no detrimental effects on the pet, but some owners are still wary of the fact that this test has a placebo control. Pets who participate in the study are treated with laser (or placebo—no laser light but time is still spent with the pet) and some swelling measurements and blood samples are collected at various periods over 3 days: one initial treatment then again at 12, 24, 48, and 72 hours. This is a powerful but safe Class IV laser that provides several benefits, especially by exciting cytochrome c oxidase, a key enzyme involved in ATP production in mitochondria. By exciting this enzyme, ATP production is increased which aids in cell proliferation and thus the healing process.

As rattlesnake season comes to a close, Dr. Chamberlin is beginning to analyze the data he collected. It appears that the laser therapy has been effective. All experiments require a detailed analysis to determine the clinical significance of the treatment.

Hopefully this research will ultimately result in the wide use of laser therapy as an effective treatment for pain and edema associated with rattlesnake bites. In the meantime, be sure to be careful when taking your dogs for walks in any of Fort Collins’ many green spaces and be sure to get your dog to a veterinarian as soon as possible if you believe your dog was bitten by a snake.
Doggie Cookie Baking Party!

Come make delicious doggie treats to donate! Get down and dirty in cookie dough and help satiate some hungry dog tummies. All materials and cookie cutters will be provided. Just bring your fabulous pet-loving self. Who knows, there may even be human cookies to be donated to your mouth!

This bake-stravaganza will be held on Saturday, November 17th. Meet at Edwards at 5am

Corn Maze

Corn mazes are lots of fun and always a fantastic way to get to know some fellow members while you are lost. You can build your directional orientation while you stumble through a small part of Kansas as well! I have tried raw corn before, and it is really, REALLY starchy. Nom at your own risk.

The corn maze will be on Friday, October 19th at 8pm. Come prepared to have a good, corny time!
Animal Fun Facts

- The pistol shrimp “shoots” with its claw
  - The shot stuns prey with imploding bubbles
  - Temperature shortly reaches that of the sun
- The bootlace worm is the longest organism on earth
  - It can grow up to 200ft long!
- Clown fish live in colonies with one female
  - The most aggressive males become female

Club Contacts

Jackie Murphy, President
Jdmurphy@rams.colostate.edu

Melissa Matiatos, Vice President
matiatos@rams.colostate.edu

Kenneth Compton, Secretary
kjcompto@rams.colostate.edu

Tiffany Uhl, Treasurer
tuhl@rams.colostate.edu

Neil Ericson, Community Outreach
NBEricson@rams.colostate.edu

Michelle Yamashita, Activities Coordinator
mcyama@rams.colostate.edu

Cassandra Welch, Publicity Coordinator
cassrw@rams.colostate.edu

Cole Bourque, Newsletter Editor
onlinecabourque@yahoo.com

Allison Carter, Historian
Animals_allison@msn.com

Sophia Johnson, Webmaster
sajohns@rams.colostate.edu

Katie Abbott, CVMBS Representative
Katie303@rams.colostate.edu

Ann Bowen, Pre-Vet Advisor
ann.bowen@colostate.edu
Office: 121 TILT Building
(970) 491-7095