Roles for veterinarians in wildlife conservation

Melissa Miller, DVM, PhD, MS  California Dept. of Fish & Wildlife and UC Davis School of Veterinary Medicine
Office of Spill Prevention & Response (OSPR)
Shark bite as a cause of sea otter death

Key findings:

• Increasing sea otter/shark conflict

• 53% (n=84) of shark bitten otters died from secondary bacterial infection, vs immediate effects of shark bite
What do you need to work as a wildlife vet?

- Undergraduate degree
- Veterinary degree & license
- +/- license to possess & dispense controlled medications
- +/- additional specialized training/degrees (internship, residency, MS, PhD, specialty board certification, etc.)
Where do wildlife veterinarians work?

• Government
• Academia
• Veterinary clinics
• Rehabilitation facilities
• Pathology & forensics
• NGOs, First Nations
• Private/self-employed
Key roles for wildlife veterinarians

- Clinical care & rehabilitation
- Wildlife conservation
- Disease (or crime) investigation
- Ecology/disease modelling
- Education & research
- Animal welfare, production
- Emergency response
- Regulatory (policy, enforcement)
- Management & administration
- Technology development
Clinical care & rehabilitation
Dr Jeff Young: Rocky Mountain Vet

Dr Jan Pol (The Incredible Dr Pol)
Disease monitoring & field sampling

Dr Todd Cornish, University of Wyoming
Safe wildlife capture & instrumentation
Develop & improve veterinary procedures
Coordinate & oversee animal translocation (movement)
Respond to environmental disasters affecting wildlife

Dr Michael Ziccardi, UCD SVM
These Bears Got Fishy Bandages After a Wildfire Burned Their Paws

By Laura Geggel, Senior Writer | January 26, 2018 04:15pm ET
Investigate mortality events
2 more whales found dead in San Francisco Bay Area

The Associated Press  Updated 10:14 am PDT, Wednesday, April 17, 2019
Investigating crimes against wildlife

http://content.time.com/time/photogallery/0,29307,1891729_1869237,00.html
Regulatory & animal welfare
Conservation & management guidance

Urban Wildlife Management
Clark E. Adams

Third Edition
Teaching & training
Research
Dr. Johnson (right) discussed One Health issues with members of Congress, including Congressman Ralph Abraham (R-LA), a veterinarian and physician. (Courtesy photo / AAVMC)
Helpful skills & knowledge

- Animal biology/ecology
- Basic animal handling & care
- Solid communication skills
- Toxicology, microbiology, parasitology, immunology, molecular biology
- Pathology, diagnostic testing, forensics
- Administration & law
- Epidemiology, statistics
Desireable traits

- Hard workers
- Self-starters, able to work independently
- Rapidly adjust to changing plans & conditions
- Accomplish large tasks w/limited resources
- Tolerate loud noises, bad smells
- Solid people skills, patience
- Intellectual curiosity
- Positive attitude
- Sense of humor
What do wildlife vets earn?

- Salary highly variable
  ($75,000 to >$200,000 + benefits)
- Long hours
- Emergencies
- Often work nights & weekends
- May include lots of travel
- Work often physically hard, smelly, cold or hot, dangerous

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<tr>
<th>Country</th>
<th>Australia</th>
<th>USA</th>
<th>New Zealand</th>
<th>Canada</th>
<th>UK</th>
<th>South Africa</th>
<th>India</th>
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<tbody>
<tr>
<td>Annual wage for wildlife vets</td>
<td>$87,053</td>
<td>$83,280</td>
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<td>$64,210</td>
<td>$51,262</td>
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How do you get started?
Show up! Volunteer! Attend meetings!

Local & National Centers of Expertise:
• UC Davis School of Veterinary Medicine (Wildlife Health Center) (CA)
• Lindsay Wildlife Museum (CA)
• National Wildlife Health Center (WI)
• National Wildlife Forensic Laboratory (OR)
• Southeast Cooperative Wildlife Disease Study (GA)

Wildlife Veterinary Organizations:
• American Association of Wildlife Veterinarians (https://aawv.net/)
• American Association of Zoo & Wildlife Vets (https://www.aazv.org/)
• Wildlife Disease Association (https://www.wildlifedisease.org/wda/HOME.aspx)

Attend the international wildlife veterinary medicine meeting (WDA) at Lake Tahoe this coming August!
Wildlife veterinary medicine is a calling as much as a professional specialization. It has advantages and disadvantages, but it is seldom dull!