

Shruti Madhusudan

Professional Profile

I am a veterinarian and zoology graduate with a keen interest in conservation medicine, wildlife conservation, disease ecology, systems ecology and one health. I am also deeply passionate about veterinary and scientific education/ communication. Interdisciplinary challenges and innovative approaches to solving complex problems excite me and I am eager to use these techniques to improve upon global health practices and conservation strategies. In the clinical sphere, I am passionate about emergency medicine and chronic disease management. I have been acknowledged for my creativity, consensus-based leadership, analytical skills, lateral thinking, and ability to work under high pressure conditions. In the workplace, I enjoy independence but equally thrive when given the opportunity to collaborate with colleagues.

Education

Bachelor of Veterinary Medicine and Surgery 08 2016 – 05 2020
Royal School of Veterinary Studies, University of Edinburgh

- Relevant Subjects: Veterinary Anatomy, Immunology, Infectious Disease, Parasitology, Bacteriology, Virology, Veterinary Physiology, Pharmacology, Diagnostic Imaging, Small Animal Medicine and Surgery, Anesthesia, Farm Animal Medicine, Equine Medicine, Exotic/Avian Medicine and Evidence Based Veterinary Medicine
- Final Year Selected Specializations: Zoological Medicine and Pathology

Bachelor of Science (Honours) - Zoology 09 2011 – 05 2015
University of Guelph

- Relevant Subjects Studied: Ecology & Evolution, Health Science, Human Anatomy, Molecular Biology, Microbiology, Calculus, Biochemistry, Inorganic Chemistry, Statistics, Vertebrate Structure and Function, Genetics, Biology Based Physics, Invertebrate Zoology, Comparative Physiology, Pathology, Population Ecology, Animal Behavior, Waterborne Disease Ecology, Conservation Ecology, Animal Migration Ecology, Biodiversity, Pharmacology, Environmental Chemistry, Wildlife Conservation and Management, Evolutionary History, Systematics, and Behavior of Apes, and Environmental Toxicology.

Veterinary Work Experience

Vet IQ Staffing /EVETTE 02 2023 – 06 2025
(Los Angeles, USA)
Relief Veterinarian

- Worked as a full-time veterinarian in urgent care, emergency, and general practice contexts.
- Performed routine preventative care and provided long term health counseling
- Performed full diagnostic work ups of critically ill patients
- Performed routine elective surgeries including ovariohysterectomies, castrations, and mass removals.

- Performed emergency procedures inclusive of urethral deobstruction, laceration repairs, amputations, and enucleations
- Performed examinations, diagnoses, and inpatient treatment and care of critically ill patients at high volume, Level I Emergency Hospitals

Conejo Valley Veterinary Hospital
(Thousand Oaks, USA)
Associate Veterinarian

06 2022 – 02 2023

- Worked as a full-time veterinarian in urgent care, emergency, and general practice contexts.
- Performed long term management of endocrinopathic, hepatopathic, and renal diseases alongside routine preventative care.
- Performed full diagnostic work ups of critically ill patients
- Performed routine elective surgeries including ovariohysterectomies, castrations, and mass removals.
- Performed emergency procedures inclusive of urethral deobstruction, laceration repairs, amputations, and enucleations

Ocean State Veterinary Specialists
(Rhode Island, USA)
Rotating Intern

03 2021– 03 2022

- Worked as a full-time veterinarian in Emergency, Internal Medicine, Oncology, Exotics, Neurology, Surgery, Cardiology, Radiology, and Ophthalmology departments at a 24-hour emergency hospital and referral centre.
- Performed full diagnostic work-ups using imaging (point of care ultrasound, CT, MRI, radiographs), blood work assessment, FNAs, tracheal washes, abdominocentesis, thoracocentesis, and bone marrow aspirates.
- Medically managed critically ill inpatients in addition to providing outpatient care
- Performed numerous laceration repairs and minor procedures including nasogastric tube placement, oesophageal tube placement, dental extractions, enucleations, and urinary catheter placement (male and female).
- Assisted in emergency abdominal and thoracic surgeries as well as elective orthopedic surgeries, mass removals, and biopsies.
- Placed and replaced numerous casts and splints for external fracture management

University of Edinburgh, Pathology Unit
(Edinburgh,UK)
Externship

02 2020 – 03 2020

- Performed post mortem examinations and diagnostics associated with internal and external cases.

Edinburgh Zoo , Student Selective Component
(Edinburgh, UK)
Externship

01 2020 - 02 2020

- Experienced annual healthcare checks on a variety of species, treatment plan development and provision, contraceptive protocol development, blood draws and analysis, anaesthetic monitoring, critical care procedures and surgical procedures in a variety of zoo specimens.

Mcknight 24-Hour Veterinary Hospital
(Calgary, Canada)
Externship

11 2019 – 12 2019

- Practiced ultrasound diagnostics, radiography, drafting emergency treatment plans, performing daily clinical examinations, emergency surgeries, and anaesthesia.

Thrums Veterinary Group 07 2019 – 07 2019
(Kirriemuir, UK)

Externship

- Practiced imaging diagnostics, assisted in basic surgeries in small and large animals, performed on site health checks and procedures in cows, sheep, and horses, assisted in triaging and managing out of hours emergencies and critical care patients, ran consultations, took histories, drafted treatment plans and performed minor procedures (including dentistry) in small animals.

Bayabat Wildlife Rehabilitation Centre 03 2019 – 04 2019
(Sinop, Turkey)

Externship

- Assisted in the triage, surgery, anaesthesia, and medical management of injured wildlife.
- Assisted in building enclosures and developing enrichment systems.

Sahipsiz Hayvanlar 03 2019 – 04 2019
(Sinop, Turkey)

Externship

- Assisted in performing castrations and ovario-hysterectomies in stray cats and dogs as a part of a not for profit initiative (~16 animals)
- Performed general health examinations and provided vaccines for stray dogs.

R(D)SVS, Hospital for Small Animals (Anaesthesia Department) 12 2018
(Edinburgh, UK)

Externship

- Developed, provided, and monitored anaesthesia in small and large animals undergoing surgery.

R(D)SVS, Hospital for Small Animals (Cardiology Department) 12 2018
(Edinburgh, UK)

Externship

- Took clinical histories, performed cardiology focused clinical examinations (inclusive of echocardiography, ecgs, blood pressure monitoring), pace maker fitting, and assistance in developing ongoing therapeutic plans.

Alberta Institute for Wildlife Conservation 04 2015 – 08 2018
(Alberta, Canada)

Externship

- Assisted in the triage and medical management of injured wildlife.

Vets4Pets Fort Kinnard 06 2018
(Edinburgh, UK)

Externship

- Assisted in taking histories, performing clinical care, providing preventative care treatments, and basic diagnostic procedures.

Blue Cross of India 03 2018 – 04 2018
(Chennai, India)

Externship

- Assisted in performing clinical exams and providing preventative care treatment to dogs and cats in a shelter environment.

R(D)SVS, Hospital for Small Animals (Exotics Department) 12 2017
(Edinburgh, UK)

Externship

- Assisted in performing consultations, doing clinical exams, providing treatments, assisting in surgical procedures (orthopedic and minor surgical procedures), dentals, and medical management of exotic pets.

R(D)SVS, Equine Hospital 10 2017 – 03 2020
(Edinburgh, UK)

Externship

- Assisted in triage of emergency admit patients and provided ongoing medical treatment, and physiotherapy for critical care patients out of hours with a strong emphasis on independent and teamwork to manage a large number of cases (upwards of 30 on some occasions).

R(D)SVS, Hospital for Small Animals (ECC) 12 2017–03 2020
(Edinburgh, UK)

Externship

- Assisted in taking histories, performing triage, blood work, drafting ongoing care plans, and providing medical treatment to emergency and critical care patients.

OVC Equine Hospital (Foal Watch Program) 11 2011 – 04 2015
(Guelph, Canada)

Student Volunteer

- Provided necessary out of hours nursing to neonatal equids including the placement of NG tubes, provision of milk, physiotherapy, and provision of oral therapeutics.

Research Experience

Postdoctoral Associate 06 2025- present
University of Calgary, Faculty of Veterinary Medicine (Calgary, Canada)

- Performed a systematic literature review on caribou health indicators
- Planned and ran wildlife health workshops for government wildlife conservation officials
- Performed post mortems of submitted wildlife carcasses and collected samples for diagnostic testing using ELISA and PCR.

Lilongwe Wildlife Centre/Liwonde National Park Research Centre 05 2022
(Lilongwe/Liwonde, Malawi)

- Executed long term monitoring of carnivorous and avian species within an enclosed national park system using telemetry, camera trapping, and field tracking/observation.
- Trained in wildlife immobilisation techniques and in tranquilisation protocols.

The Impact of Abiotic and Biotic Ecological Vectors on the Abundance of Ixodes Ricinus Ticks in Cornwall.

University of Exeter (PI: Dr. Barbara Tschirren) 04 2018 – 03 2020

*Funded by the BBSRC (Veterinary Summer Studentship Grant)

- Designed and executed a survey protocol across 47 sites in Cornwall
- Presented results of study at the BBSRC Undergraduate Student Research Conference 2018.

The impact of vaccine induced immunity on fecundity in wild Scottish mice.

University of Edinburgh (PI: Dr. Amy Pedersen) 09 2017 – 07 2018

- Assisted in the setting and collection of traps, sample metric collection (age, size, weight, sex, blood sampling).
- Assisted in processing fecal, urine, and blood samples from trapped and released mice.

The covariance and spatial ecology of Canine Distemper Virus (CDV) and *Baylisascaris procyonis* across Southern Ontario.

University of Guelph (PI: Dr. Nicole Nemeth)

08 2014 – 05 2015

- Performed post mortems on raccoons submitted to the project to assess intestinal parasite burden.
- Collected and processed tissue samples of internal organs for CDV detection.
- Used ArcGIS to map the presence of these two pathogens across Southern Ontario
- Assisted in maintaining a large, ongoing disease database
- Presented findings at a poster and research symposium.

The disease ecology of Scleratinian corals of Discovery Bay, Jamaica.

McMaster University (PI: Dr. Jurek Kolasa).

10 2015 – 04 2015

- Performed epidemiological surveys of coral reefs along 750m of coastline.
- Cross mapped reef currents with qualitative and quantitative disease data.
- Assessed the varied impact of water depth, ecological environment, water quality, and nutrient content on disease epidemiology.

Hair cortisol and stress in urban *Rangifur terandus* in response to parasite load, Parasite load in wild *Rangifur terandus* and *Alces alces* in the Canadian sub-Arctic, Lungworm shedding in captive *Ovibos moschatus*,

University of Calgary (PI: Susan Kutz)

04 2014 – 09 2014

- Processed fecal samples using Baermann's and float procedures
- Performed organ dissections to identify and quantify lungworm cysts
- Performed parasite counts to determine load in feces
- Managed sample collection database

Shedding of *Mycobacterium avium* subsp. Paratuberculosis in naturally infected dairy cows.

University of Calgary (PI: Dr. Herman Barkema)

04 2013 – 09 2013

- Collected ~1619 inter-rectal fecal samples from fourteen Alberta dairy farms
- Designed qPCR and ddPCR protocols
- Ran DNA extraction, liquid culture and qPCR protocols on fecal samples
- Independently created and managed large database of calf diagnostics
- Presented acquired results both orally and through visual aid in a symposium setting

Teaching Experience

- Assisted in teaching basic anatomy and clinical examination skills on animals to lower year vet students.
- Developed and executed basic biology workshops for 14-16 year old students in the greater Edinburgh area.
- Vet- Peer Assisted Learning Tutor
 - Assisted lower year students with developing effective learning strategies and study skills

Other Veterinary and Animal Experience

- All4Paws, Volunteer
 - Performed clinical assessments and provided treatments to pets of low income individuals.
- University of Edinburgh One Health Society, Member
- Student Veterinary Emergency and Critical Care Society, Treasurer
- IVSA-Edinburgh, Member and Organizer
- Wildlife Disease Association, Member
- European Association of Zoo and Aquarium Vets, Member
- Dick Vet Student Union, Student Welfare Officer
- Fostering Compassion, Volunteer
- Patient Outreach, Volunteer
- Veterinary Student Volunteer on Cattle, Sheep, Pig, and Horse Farms as well as Shelters, Therapeutic Riding Centres and Wildlife Rehabilitation Centres

CPD and Auxiliary Training

- UCVME (Certificate in Veterinary Medical Teaching)
- RECOVER INITIATIVE Advanced Life Support
- Fear Free Certification
- Global Health at the Human-Animal-Ecosystem Interface (in progress)

Other Skills

Languages

Intermediate Tamil, Elementary Spanish, Elementary French, Elementary Japanese, Elementary Hindi

Computing

R Statistical Package, Microsoft Office Suite, Adobe Photoshop, SPSS, ArcGIS, Python.

Medical

Standard First Aid with CPR Level C and AE
RECOVER Initiative
Fear Free Initiative

References

On request

