

Since We Don't Actually Have a Tricorder

Every day, we can find thousands of graphic images on social media showing animals suffering from neglect and abuse. For most of us, the best we do is maybe make a donation when we see that a credible non-profit group is involved. But, for some it's an irresistible call to action. They put together whatever supplies they can with the help of friends family and sponsors and with their skills as veterinarians and techs, get on planes, trains, automobiles, maybe horse back or just their backpack. They travel to the farthest edges of civilization, go to work under sometimes dire conditions, risking life and limb, because it's a calling some have felt since childhood, they want to be healers in a world of hurts.

Most of the technologies we take for granted at vet practices like digital X-ray, blood analysis machines, surgery suites with recovery rooms are nowhere to be found.



Their patients might be dogs and cats seen everyday with typical aches, pains, wounds and other injuries. But more likely, it's going to be species they never saw in vet school and their wounds, including from predation can be very traumatic, requiring immediate attention and the best care possible to get them back on their feet, able to be released for work or into the wild.

Equipment triage is the order of the day, every day. If it's anything to do with electronics, it better be very durable, easy to operate and last a long time on quickly rechargeable batteries. And, it has to produce quick very reliable and above all safe outcomes for a lot of conditions. It must be dependable for years in all sorts of temperatures, humidity and altitude. Basically, it needs be close to Dr. Bone's Tricorder on Star Trek.

We felt our own calling to profile these vets in remote places, both to recognize them for their sacrifices and successes, but also to inspire others. There are programs like Loop Abroad and others that give vets experiences they will never forget and confidence that will forever serve them, wherever their pursuits take them later.

Erica Ward, DVM, started her career as wildlife vet at Thailand's Elephant Nature Park (ENP). As is normal, Ward and her team had extremely limited access to medical supplies for the rescued elephants, dogs, cats, monkeys, water buffalo and a few birds that found refuge at ENP. But, the park's population grew rapidly and soon was accommodating over 1,000 animals. One of the tools Ward found to be most useful for her patients was a new form of cordless therapeutic laser.

Ward found it especially good for speeding up healing with acute wounds, help with pain and inflammation for many elder animals with chronic arthritis and other musculoskeletal conditions. The rescued elephants often came with abscesses from sleeping on pavement after a life of forced street begging. Others had wounds from rough play with other elephants. "Anything we can do that will help speed up healing and get these elephants back in action, able to enjoy their retirement is a plus. That's where this class 1 laser was a very big help while I was at ENP" Ward said.



After 3 years at ENP, Ward joined non-profit Loop Abroad, a study abroad program for high school and college students interested in pursuing veterinary careers. She continues to work with numerous elephant rescue centers throughout Thailand, and her work has taken her to South Africa where she treated a tooth abscess on a cheetah. “The laser helped relieve pain and mature the abscess faster. We also used it post-extraction for faster recoveries,” she said.

Trish London, DVM, CVA, one of Dr. Ward’s good friends, worked alongside wildlife veterinarians in India, Thailand, Cambodia, Laos, Vietnam and Sri Lanka. Now, she’s stationed in the small village of Sauraha, Nepal, where she works with non-profit Stand Up 4 Elephants (SU4E) caring for captive elephants that have spent their lives working jungle safaris, transporting tourists or helping with poacher patrols.

London is not exempt from the challenges that come with caring for elephants in these remote parts of the world. So, when Ward loaned London one of the Lasers she had, she was excited to put it to work for her own very challenging elephant patients – and she had a special case in mind.

Sita Kali, known as Sita, is a blind, captive Asian elephant in her 40’s who provided safari rides in Nepal for 3 years. Sita was knocked down by another elephant, leading to a series of additional injuries over the next 3 months including necrotic pressure wounds, edema, and a swollen carpus; she couldn’t stand on her own until she had a special sling and harness to keep her elevated.

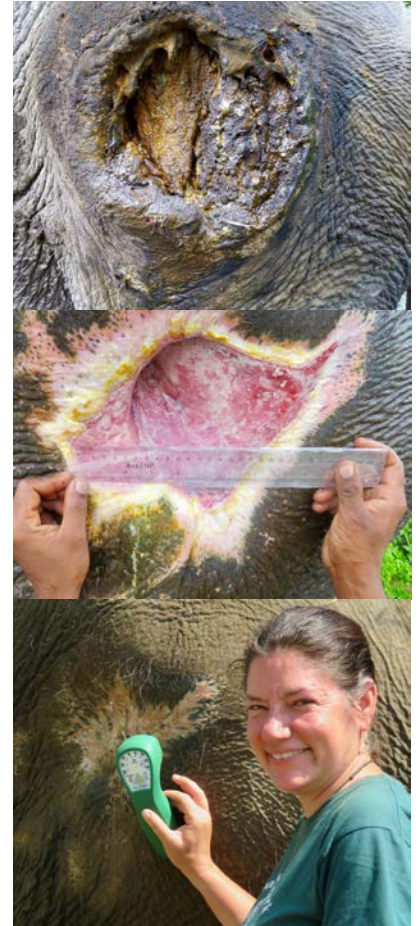
London immediately started laser therapy treatments. Her laser has three synergistic wavelengths delivered at specific frequency settings to either relieve pain, increase circulation, reduce inflammation and or repair tissue. The laser’s blue wavelength is bactericidal and immediately started helping to heal the large wound on Sita’s hip. And, because the laser is super pulsed, there was no risk of overheating tissue, unlike the class IV’s she saw in vet practices.

After 3 months of 1x daily laser treatments combined with topical medications, the once-necrotic wound had remarkably healed completely.

“Elephants are prone to be very slow healers, and I think this laser helped heal her wound more quickly and completely than we would have expected with traditional methods,” London said.

Rinku Gohain DVM, originally from Assam, India has been tending elephants in Thailand, Netherlands, U. S., to name a few. It was this passion that led him to Wildlife Trust of India, in a remote area of Aruncachal Pradesh.

During his 13 years of experience in elephant medicine, including vet at ENP where he was introduced to this laser, Gohain has advocated for both mental and physical well-being of wild and captive elephants. He uses positive reinforcement training and other behavioral techniques to gain trust of elephants that have not forgotten abuses they suffered from humans. For elephants with serious trust issues, not



readily compliant with veterinary interventions, it made perfect sense to integrate laser therapy into his treatment regimen. In early 2019, Gohain added a more advanced laser from the same manufacturer, with double the peak power and much more powerful blue wavelength for infections. With positive reinforcement training from his good friend and elephant behavior expert, Chrissy Pratt, also from ENP, elephants were trained to present their feet or other body parts needing treatment.



“The elephants are very compliant with laser therapy because it’s non-invasive, they don’t feel any heat from it and they learn to associate it with pain relief,” Gohain said.

“We’ve used the laser to treat several types of abscesses, even one on a penile sheath caused by an errant tranquilizer dart, bullet

wounds and dental complications in several elephants and so far we’ve seen very positive results.”

Jamie Vaughan began her animal rescue mission with 1 injured stray dog in Paro, Bhutan. More than a decade later, as founder of Maya Foundation, Vaughan and her team always work hard to give each injured animal a second chance at life. But now, it’s 400 diverse animals and they too are limited with treatments they can provide because her 501(c)(3) also operates solely on donated funds and volunteers.

A partially paralyzed mule named Agay arrived at the shelter in 2018 and his condition wasn’t improving. Vaughan was running out of options. Thanks to a donation, Maya Foundation was able to purchase one of the same super pulsed lasers to see if Agay could regain mobility.

“He wasn’t responsive to any other treatments, it was honestly a last resort to save him. But, it worked wonders for his mobility with just a couple of sessions. We all smiled, knowing this was going to be an invaluable tool for our patients to come,” Vaughan said.



Vaughan now uses this laser therapy on nearly every severe injury. “We have a semi wild pregnant yak with a stump wound from an amputation 7 months prior that without postoperative care had never properly healed”.

To prepare the animal for prosthesis, Vaughan uses the laser along her spine for relaxation and locally for tissue repair along with the blue wavelength for infection.

“This laser is not only incredibly capable”, Vaughan said, “It’s a safer alternative to traditional medications”. “We don’t always have comprehensive blood tests available for animals here, and with laser, we don’t have to worry about possible kidney, liver damage or other side effects due to NSAIDs and corticosteroids,” she said.

Today’s most advanced lasers possess the ease of use, safety, versatility and portability that enables Elephant Nature Park, Loop Abroad, Stand Up 4 Elephants, Wildlife Trust of India, Maya Foundation and countless others to benefit all animals. Veterinarians can quickly become confident that with this laser, they can successfully treat patients anywhere, anytime.