

A Tale of Two Rabbits

By JENNIFER GRIMES

Editor: SHANA ABÉ

IT WAS THE WORST OF TIMES, but soon to become the best of times. To begin at the beginning: very late one dark Christmas night, as Jen and Brian were driving home from celebrations, two rabbits ran into the street! Immediately recognizing the familiar silhouettes, Jen stopped the car and both humans leapt out. Thus began a pursuit which was to last nine days and nights.

As the intrepid yet ineffectual humans dashed back and forth, ducking under cars and through bushes, curious neighbors queried, "Can we help you?" It was then they learned the rabbits had been first observed three days earlier, and no one had been able to catch them. Shocked at the obvious abandonment of two innocents, Jen and Brian persevered.

Brian succeeded in catching the white rabbit as she took a rest next to a parked car (this habit of resting at any given moment was to prove characteristic of this charming creature). After stowing the bunny in Jen's trusty Beetle, the pursuit of the gray rabbit continued. Realizing that this bunny was not only fast but smart, and that Brian could barely walk after all the dashing about, Jen and Brian at last went home with the white rabbit, vowing to return the next day to secure the gray.

Not knowing if the mystery bunny had any communicable diseases, they opted for a special area in the kitchen—supplied with a soft bed, food, water, and a litter box—separate from their resident bunnies Emerson and Eddie. The white bunny, now known as Bunny Doe, knew how to use the litter box, thus proving the suspicion that these had been someone's cruelly abandoned pets. (It

should be noted that not only were the rabbits found four blocks from Jen and Brian's, but a mere two blocks from the national headquarters of the House Rabbit Society.) But at least one was safe.

The next day Jen solicited the help of her brother Ken, who, as a documentary filmmaker, ex-marine, and rabbit aficionado, recognized an emergency situation and immediately came to help. Alas, no Little Gray Rabbit could be found, but telltale bunny evidence led to a locked doctor's gate... which was to *remain* locked, as the belligerent nurse on the premises refused to help. The House Rabbit Society, on the other hand, was happy to help with the loan of a humane trap.

After the pleasure of making Bunny Doe's acquaintance, Ken departed and Jen took Bunny Doe to the vet, where she was treated for fleas as well as intestinal worms (both hazards of being dumped in an area with feral cats).

Each night, for nine nights, Jen would go to the doctor's office, place the trap, and return by 6:00 a.m. to check and remove it. Still, days would

pass before she saw Little Gray Rabbit again: on New Year's Eve, amid the fireworks over Richmond, the bunny was sighted!

Hope, which had been waning, waxed.

On a stormy January morning, Brian went by the doctor's office to check the cage and inside was... Little Gray Rabbit! He brought her home, to Jen's squeals of delight, and she immediately took the bunny to the vet. Having been roughing it much longer than Bunny Doe, Little Gray Rabbit was in much worse shape—malnourished and needing medicine for ear mites, fleas, and worms. The vet also



Better times for two abandoned pets

advised that until both bunnies were given a clean bill of health, they should be kept apart. Thus began Chapter Two of this adventure, in which four rabbits lived in one house in separate locations, two humans spent a lot of time going through various rabbit fences, and much parsley was consumed.



In Which the Bunnies Are Named

DURING THE PROLONGED SEARCH for Little Gray Rabbit, Bunny Doe was healing apace, and proving to be a very friendly rabbit indeed. She was fond of attention, often jumping and dancing about in the special rabbit dance known as “the Happy Dance.” Indeed, it was through her dancing that her name was found: Isadora Thumpin’ (after the great dancer Isadora Duncan). You see, after her dances of wild abandon, Isadora would often thump, else throw herself upon the floor in a delighted flop. Petting and treats would, of course, follow.

A special area was set up for Little Gray Rabbit right next to Jen’s side of the bed. Gray Rabbit had her own comfy bed, a litter box, water, and delicious food. She had to take her medicine twice a day, at which time she would receive many pets. She would also receive many pets throughout the day, as she was a dear little thing and enjoyed the pets very much. She was always happy to have attention; however, as the days went by, it became obvious that she was getting lonely.

Finally came the day the two girls reunited, taking up residence in grand style in the kitchen. Little Gray Rabbit joined in Isadora’s happy dance, adding vocals. Yes, Little Gray Rabbit chortled quite exuberantly. This, combined with the fact that she had rather oily fur when she was first rescued (due to hiding under cars for two weeks), and that she was apt to affectionately lick Isadora as well as the humans, was how she became known as Grace Lick (after the singer Grace Slick).

Things were going smoothly, with the exception of one very unsettling week in which both girls started frantically making nests of hay in their sleeping boxes. Fortunately, this proved to be a false alarm. Shortly thereafter they were spayed, and both made excellent recoveries.



In Which the Girls Meet the Boys

WHEN GRACE AND ISADORA had fully mended, it was time to introduce them to Emerson and Eddie. At eleven, Emerson was the elder statesman, whilst Eddie was an active ten-year-old. However, it should be noted that these two gents were dwarf rabbits, with Emerson weighing in at a little under four pounds, and Eddie busting the scales at a bit less than three-and-a-half. The glorious ladies, now in robust health, were considerably larger than the boys. Yet the heart moves in mysterious ways; due to the sweet natures of all concerned, an introduction was deemed appropriate.

The ladies were released from captivity, allowed to explore the house, and, eventually, find the gentlemen. Which they did. It was not a terribly eventful meeting (a good thing, really). The girls were overjoyed to discover so many fun things to do in the house in general and in the gentlemen’s quarters in particular. Dashing about the room was in high favor, as was jumping atop the sleeping pavilion. Eventually the gents themselves were discovered to be cozy, and it seemed as if all might be well.

Alas, it was not to be.

Although the girls were kind to Eddie, their size and energy had a dizzying effect upon him—so much so that he fled from their every approach and spent all day hiding under furniture. Emerson, however, was enthralled with his new companions, and liked nothing more than to snuggle between them.

As might be guessed, Eddie, having spent all his life as Emerson’s companion, found himself alone. Grace would seek him out and try to groom him, but the die was cast. Eddie only ran away.

He became most downcast. Jen reached the difficult conclusion that he would never be able to bond with the girls, as he was now a very miserable little bunny.



In Which the Bunnies Find Their Forever Home

A LUXURY SITUATION was set up for the girls in the kitchen once more. As soon as he realized there was a gate between him and the girls, Eddie became himself again, eating and running about. *(continued on page 9)*



Eddie and Emerson before meeting the girls



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InBox

Editor: BETH WOOLBRIGHT

Input/Output: About Litterboxes

AS WE SURVEY the bunny "apartments" at the Rabbit Center, in Richmond, California, one of the details I point out to first-time adopters is the multi-dimensionality of the rabbit's haybox: litterbox, hay-feeding station, home base. We discuss how the pellets that line the box are different from the pellets in the bowl; how bunny eats the fresh hay on top but seems to know not to eat the soiled hay below; how the box can be used for more than "input/output," but also for lounging and refuge.

But, as with all things rabbit, bunnies and their people vary. For instance in my household Maddie and Jesse have a haybox that's just hay, with both of them deciding they didn't need to poo where they munched. The variety of litters also came out in a recent conversation among HRJ editors.—Ed

Beth Woolbright: For litterboxes, I'm intrigued. What's there beyond dump, squirt with vinegar, rinse? Oh yeah, and sneaking the dumped contents into the compost bin, disguised by a layer of pine needles so the garbage men will collect it...

Marinell Harriman: I've used newspapers and hay for years. For cleaning techniques, the vinegar squirt works for me, but the article I came across a few days ago had a litterbox slipped completely into a drawstring plastic bag. When it was time to dump the litter, the drawstring was loosened to remove the litterbox, which was unsoiled, and all the litter was tied up in the bag. The plausibility of that technique would depend on the bunny's chewing behavior.

Another technique that I read about years ago was in a letter from a woman who didn't use litter at all. She put small rugs or towels inside the litterboxes, and when they became soiled she shook out the "beans," as she called them, and laundered the rugs. I'm not far from that right now with the washable rugs I keep under my six disabled rabbits.

Amy Bremers: I do litter boxes differently depending on the bunnies! For my special-needs bun, I do the towel method; for my "regular" buns I use newspaper, wood pellets, and a hay/grass mixture; and for my foster bunnies, I use newspaper and hay/grass (since I don't know what their adoptive families will want to use). My mom uses a liner and aspen bedding. When cleaning, I use vinegar only every few times; most times I just dump... too many litter boxes to do a thorough cleaning every time! And we don't have composting pickup here. It's funny... I recycle so much that my trash can is pretty much just the bunnies' trash!

How the Rabbit Center Does the Hay Box

The Rabbit Center usually has around 40-45 bunnies on site, 35 for adoption and up to 10 or so who are boarding. That's a lot of litterboxes. Using a redundant system, there are two sets of boxes for each individual rabbit or rabbit pair, so that there's a clean litterbox to swap out the dirty one.—Ed

Krystal City: We change litterboxes every other day: Tuesday, Thursday, and Saturday (an uneven number of days during the week).

Cleaning Steps

- Dump the the used litter and hay or compost it
- Dry the inside and outside
- Spray a mixture of half water and half vinegar
- Scrub the residue
- Proceed to fill the box with hay and *Cat Country* (a pelleted grass litter)

I then take a scoopful of *Cat Country*, just enough to cover the bottom of the litterbox—not too much, but not too little.

Taking a large handful of hay (we use orchard grass or timothy), I cover the bottom. Depending on the size of the box, I may use two handfuls of hay. Next, let the bunnies enjoy their fresh box! ■

Diamond's Odyssey

From Foundling to Foster to Family Member

BY EVKA VAŠKOVÁ

EDITOR'S NOTE: The House Rabbit Journal includes this article by Evka, from Slovakia, to provide a global voice and its author's perspective on rabbit rescue and aggression.

Here Evka describes her first-time experiences as a fosterer—anxieties and joys shared by fosterers the world over—and the challenges fosterers face in discerning who really will follow through with a rabbit's needs.

DIAMOND WAS A COMMON village rabbit who was lucky to escape the fate shared by so many of her fellow rabbits: being eaten.

She was found in a nearby village and caught by a woman who almost struck her with her car. The woman was very sorry to see the poor rabbit, so she took her home but could not keep her. And so Diamond came to me.

When I saw Diamond for the first time she was in a cage with the door open. However, she didn't want to leave it and had been sitting there for over eight hours. She had food and water, but there was no sign that she was eating . . . or eliminating.

I was concerned for her health so I started to speak to her calmly and took her out of the cage. She didn't protest in any way and ate the food I offered. After some time in those surroundings I took her to my home.

Diamond got new clean bedding, food and fresh water, and I closed the cage. When I checked on her later, Diamond had used the water as her litter box! It meant only one thing: she was used to being free in a larger space. My suspicions proved correct: when I let her free in her room she used the litter box perfectly. During all the time she stayed with me, I never found any poops on the carpet. Not one bit.

Diamond's story is also an example of aggression triggered by human behavior.

Diamond's disposition was very sweet, calm, quiet and affectionate (she was as sweet as my Ushenka, about whom I wrote in an earlier issue). She knew not to chew carpets or destroy furniture. She calmly sat on the sofa, waiting for me and enjoying the time I could spend with her.

Eventually a friend, whom I will call Alanna, found a new home for Diamond outside our city. Alanna believed they would be a suitable family for Diamond and that the bunny would have a space of her own. To be helpful, I even wrote them a letter about Diamond, including her care instructions. I enclosed my email address so they'd be able to contact me with problems or questions. I pointed out that she wasn't a dwarf rabbit and would

weigh about 5.7 kilograms [about 12.5 pounds] when she grew up. Unfortunately, after the first days the family's interest in Diamond waned. They didn't give her enough food, and she had no vegetables. They neglected her, and she started to be aggressive. This was my sweetheart who licked my hands and happily sat next to me!

I was very angry.

Alanna brought Diamond back to her own house. In the photos Alanna sent me, Diamond had lost weight—and at the time she was only about 3 months old, so she should have grown. Alanna couldn't touch Diamond because she'd become aggressive, a result of poor handling. However, Diamond again found herself in a calm and quiet place with enough food and loving care, undisturbed by dogs, cats or improper human behavior. After two weeks in Alanna's house, she started to act like the sweet girl we knew. She

played happily with Alanna and with her toys. She stopped biting and started to show her love and affection by licking the hands that petted her.

After she'd had time to adjust and recover, Diamond was successfully placed with a loving family, and now she is content and happy in her forever home—she is like their child. ■



Saved: One common village rabbit—twice.

Rabbit Speeds

Breathing in the Calm

BY AMY A. FREE

SPEAK TO ME IN RABBIT, NESTLÉ," is what I say in my mind and try to communicate while flat on my stomach, limbs relaxed, eyes soft. I look at him, gorgeously cute, sleepy but alert in that particular way rabbits snooze. It was more than five years ago that he joined our family by adoption at the Humane Society in Madison. I loved him immediately, vowed to take care of him forever, and readied both my brain and soul to absorb all he had to teach me about rabbits and bunnyhood.

"Refuse to burn." It's the next phrase that comes into my mind, a quote from a professional Life Coach. I remember her words because they were what I needed to hear. I came upon the article while paging through a magazine in a medical waiting room. Had someone asked if I was feeling stressed-out, a truthful reply would have been, "Yes." However, I probably would have said, "I'm busy, but good." The article was aimed at people who take on too much and push themselves with work-work-work. It was talking to me.

Difficulty sleeping? Unhealthy eating? Gaining weight? Lack of energy? All of the above? Check. I knew the signs of stress by heart . . . and by gut. That's where all the pounds were piling up. Sure, it was ridiculous for me to work 12-hour days, come home and immediately jump on the computer to check email and sign up for more jobs and more volunteer projects while eating Oreos for dinner. Plus, I felt guilty that I wasn't

spending nose-rub time with Nestlé, instead "connecting" with 20 or 30 people through cyberspace from my home office. I was a slave to my email inbox, afraid to pass-up a job or say "no" to a volunteer need or the next intriguing project idea.

I worked and worked. The seasons changed. Summer became Autumn. My flowy, comfy skirts were gradually phased out for pants, and so the need to confront the extra pounds. I vowed to start exercising. I'll admit it: I hate going to the gym. I am not a runner, lifter, climber, lap swimmer, or any sort of "I'm-going-to-work-out" athlete. I like



Nestlie in slow-speed.

a good ol' '80s or '90s style aerobics class. I love a nature walk or outdoor power walk.

I called my friend Jenelle, someone I've always admired for her philosophy of keeping life balanced and healthy, and asked her to test-drive some yoga classes with me. It was time to get back in the groove: three studios, four different classes, including one style neither of us had heard of that sent us

into grade-school giggles halfway through the practice.

Getting back to yoga felt amazing. My muscles thanked me for getting up from a desk and asking them to do stretches and poses they remembered. "Why did I stop doing yoga?" I berated myself during Downward Facing Dog rather than clearing my mind. By the end of an hour's sequence, I felt blissfully exhausted. With the studio lights dimmed, lying on my mat, face toward the sky, I closed my eyes and melted into *shavasana*. Completely still, breathing slowly, just being present. This was refusing to burn. This was being stress-free. This, I realized, is the feeling of being with my amazing bunny.

Since that evening of discovery that he is my *shavasana*, I have made it my practice to just lie flat in Nestlé's presence everyday. In addition to our daily pre-breakfast dances, frequent noserubs, and his favorite butt massages, we now have our special, very still way to connect. Some days I get home from work and flop on the floor as soon as my coat is off. Other days, the computer gets my attention for a while and our fusion happens before bedtime. I look at Nestlé, I breathe his calm, and I offer him my gratitude for teaching me. Life doesn't need to be running and jumping and zooming around constantly. Life also needs quiet and stillness and trust. Bunny speeds.

Fast and slow. Not burning at both ends. It's a Rabbit lesson everyone can learn. ■

Amy A. Free is a certified, licensed sign language interpreter, writer, and sometimes zoologist. Nestlie is her muse, her in-home guru (who usually tries to nibble her mat) and her "baby smoochie!" After meeting Wisconsin HRS member Nancy Lindsay, who spotted a rabbit bumper sticker on her car, Amy became a member, HRS educator, and the chapter's newsletter editor.

Alternative Therapies to Treat Rabbit Pain and Musculoskeletal Issues and to Stimulate Wound Healing

TERESA BRADLEY BAYS, DVM, CVA, with Marie Mead

Introduction

ALTERNATIVE THERAPIES can be very useful in treating rabbits for many acute and chronic conditions. They work best when utilized in combination with traditional veterinary therapies. Although amazing results can be achieved, it is important that both the veterinarian and the owner discuss expectations for the therapies used. The most important goals would be to make the rabbit patient more comfortable, less anxious, and to have an improved quality of life.

Careful consideration of training and qualifications should be made when choosing veterinarians who use alternative therapies in their practice. As with other alternative modalities, some complementary treatments discussed in this article also require specific knowledge about rabbits; for example, an acupuncturist should be familiar with rabbit physiology.

This article discusses the use of microcurrent electrical therapy, cranial electrotherapy stimulation, cold laser therapy, and acupuncture, and the way they are used in rabbits for pain management, musculoskeletal issues like arthritis, and wound healing.

Microcurrent Electrical Therapy and Cranial Electrotherapy Stimulation (Alpha-Stim®)

Microcurrent electrical therapy (MET) and cranial electrotherapy stimulation (CES), both generally known as Alpha-Stim®, are FDA-authorized prescription medical devices for treatment of pain, depression, and insomnia in humans. Both MET and CES have also been found to be useful in treating animals for pain and for stimulating wound healing.

MET promotes healing, sterilizes wounds, and modulates pain by initiating and sustaining biochemical and electrical reactions that work with the body's electromagnetic fields. CES works to nor-

malize the overall electrical firing of the brain's hypothalamus to bring it back into homeostasis (internal equilibrium, or balance). This is referred to as the alpha state, which is similar to that produced by meditation.

At my exotic animal care center, I use MET and CES, alone and in combination, on a regular basis for all species: as an adjunct therapy for surgical pain, to help extensive wounds heal faster, for stress and anxiety-related disorders (e.g., over-grooming, separation anxiety), as well as for lameness, arthritis, and other pain-associated problems. The electrical current stimulates healing, helps eliminate infection, decreases the amount of anesthetic needed for surgical procedures, and helps to eliminate or diminish anxiety and pain.

I have used MET and CES on many rabbits with great success, for arthritis, large traumatic wounds, chronic gastrointestinal hypomotility (slowdown), and head tilt. The therapy is also very beneficial for rabbits with anxiety and stress-related issues. Even in cases where the primary problem may not be correctable, head tilt for example, the therapy may help to restore musculoskeletal function that has been affected and eases the stress associated with the condition.

Alpha-Stim® is a non-invasive and drug-free therapy and since the electrical stimulus is in the low microamperes, even animals as sensitive as rabbits do not feel pain or discomfort from the therapy. Within five minutes they adjust to the application and within ten minutes they become more relaxed.

In my experience, MET and CES are effective adjuncts to the standard care I provide my patients. When used in conjunction with other medical therapies, the two modalities have certainly helped my rabbit patients become more comfortable and heal faster.

Cold Laser Therapy

Cold laser therapy is utilized in human physical therapy and rehabilitation and is also a useful tool for treating rabbits. The word "laser" is an acronym for "light amplification by stimulated emission of radiation." The definition of *laser* includes mention of a device with an output that is in the visible region of the electromagnetic spectrum, which includes the entire range of radiation. Cold laser therapy incorporates a low-level radiation output, produced as a concise, targeted transmission that allows for minimal reflection and scattering while maximizing energy absorption at a specific depth. The energy is not the same as from the surgery laser, which cuts and burns; thus the name "cold" laser.

By using what is known as photobiostimulation, the energy (in the form of photons) from the laser is transmitted to the cells of injured tissue. By increasing cellular activity (photons stimulate

injured tissue. By increasing cellular activity (photons stimulate mitochondria to accelerate the production of ATP), the energy promotes healing. Local blood circulation is also stimulated, providing necessary nutrients to and bolstering the immune system in the affected area. Other physiological effects of laser therapy include the stimulation of fibroblast and collagen production (necessary for generating new connective tissue for wound healing), production of endorphins (natural pain killers), acceleration of the inflammatory process needed for healing, and increased angiogenesis (the formation of new blood vessels) and lymphatic drainage.

This therapy is noninvasive and easy for veterinarians to perform. There are relatively few contraindications: the eyes of the therapist and those of the patient require protection from the laser light, and laser therapy should not be used near or on the eye (to prevent retinal damage), on cancerous lesions, over areas of hemorrhage, and over endocrine glands—these are areas where cellular activity should not be stimulated.

Cold laser therapy helps reduce pain and inflammation, and it speeds the healing of injured and inflamed tissues. Frequency of treatment depends upon the condition being treated, as well as whether the issue is acute or chronic in nature. The effect of cold laser therapy is cumulative, with each treatment building upon the last. A rabbit with lumbosacral degenerative joint disease (discospondylosis), for example, might receive treatments as follows: two per week for one to two weeks, then one per week for several weeks, followed by several monthly treatments, and then only once every three to four months or as needed to keep the rabbit comfortable. Every patient and every case is different, and just like with people, overuse of muscles and joints or a newer acute injury might require a temporary increase in frequency. For wound healing, however, the frequency would be determined by healing response because each wound is different. Generally, wounds require two to three cold laser treatments per week for several weeks.

Cold laser therapy is indicated for many health issues in rabbits. In my practice, I've used the therapy with significant success, treating rabbits with arthritis, discospondylosis, skin and ear issues, and cellulitis. I've also used cold laser therapy both for post-surgical care and for wound healing.

Acupuncture

ACUPUNCTURE IS A MODALITY that helps with so many issues in both human and animal medicine. It has been an especially great adjunct to Western medicine at my practice in helping with pain, anxiety, and stress-associated problems in rabbits, as well as wound

“The most important goals would be to make the rabbit patient more comfortable, less anxious, and to have an improved quality of life.”

healing and gastrointestinal hypomotility and stasis. The physiological effects of acupuncture (how the body responds) are created through a series of interactions among the nervous system, endocrine system, and the immune system. Acupuncture helps to open the flow of energy along the body's natural meridians to decrease pain as well as to increase the pain threshold. By restoring normal energy flow, the organs are able to work more effectively, allowing the rabbit's body to function better as a whole.

Rabbits tend to respond quickly to acupuncture and tolerate needling sessions well, though they are more sensitive to acupuncture at peripheral acupoints (the points along the meridians where the needles are placed), such as on the feet and legs. Traditional acupuncture is designed to treat the entire patient, rather than symptoms only. Therefore, each time I see a rabbit, I develop an individualized treatment plan. Because most patients have a combination of problems, usually the most significant or acute issues are treated first, so the choice of acupoints may change as the more acute problems are minimized or as new issues arise. I often use herbal therapy to complement the acupuncture treatment, making changes in both as necessary to provide the best support for the rabbit.

There are many success stories about the use of acupuncture for rabbits. As an example, an eight-year-old Dutch rabbit with a paralyzed left leg and severe arthritic changes in her lumbosacral spine was urinating on herself and exhibiting signs of pain, lethargy, and depression. She could move on her own, but only by pulling herself forward with her front legs; her rear legs dragged behind her.

The onset of her condition was quite sudden: two weeks earlier, the Dutch bunny was quivering and posturing differently with her back legs. At that time, cold laser therapy and MET/CES were administered. She also had pain in the lumbosacral area. Mild elevation of liver enzymes made the use of meloxicam more dangerous, so she was started on buprenorphine and tramadol. Two weeks later, the Dutch rabbit presented with the “crabbing” motion, using her front legs only to move forward. Before making the final decision for euthanasia, the Dutch (*continued on page 9*)

TAKING CARE of a special-needs bunny is hard. Maybe if you're not single, your house doesn't need constant maintenance, you don't have to work, you don't help take care of an older relative, and you don't have 8-11 other rabbits, it's not so hard. But for me it is.

I feel guilty for not giving my other bunnies—my own and my fosters—as much attention as they deserve. I never get enough exercise. I miss my friends. Many nights I'm so exhausted I want to cry.

But then I look at Nika, and I smile. And I get lost in that little moment in which she sees me, lifts her head, and ecstatically squeaks a "welcome back!"

My "special" bunny is white with gray ears, a gray "moustache," gray "eyeliner," and brown eyes. She's around seven years old. I

used to call her my "bi-polar" bunny because this sweet, kissy little girl would sometimes all of a sudden draw blood from whatever appendage was closest to her face. She used to be the most feisty and adventurous bunny too, jumping on top of the couch and trying to climb the Christmas tree.

She's now paraplegic—not able to use her back legs to walk. A lot of days, her front legs don't work so well either. Nika has been this way for almost a year and a half, and her right leg, the one that is floor-facing most of the time, has since atrophied. Her condition started out several months earlier with weakness in her legs. My vet and I thought it might be due to the parasite *E. cuniculi*, so we put her on medication for it. But practically overnight Nika couldn't use her back legs at all. And practically overnight my life changed.

Several times a day, I express Nika's bladder so that she doesn't have to sit in urine. I wash her bottom, legs, and ears; massage and stretch her legs; and flip her on her other side for periods of time to relieve soreness from her right hip and help prevent bed sores (which she has had once before). Every few weeks, I clean the wax from her ears.

Almost as soon as Nika completely lost the use of her back legs, she began to have what seemed like seizures. The first time this happened, I thought she was dying. Her writhing was horrible. After the second time, I described the events to my vet, who said she was more likely experiencing tremendous pain. Since then,

I've given Nika pain medication twice a day, in addition to several other medications.

As Nika's condition progressed, she started to experience dehydration, so my vet taught me how to inject a needle into Nika under her skin and give her subcutaneous fluids.

About six months ago, while eating pellets, Nika started choking. I felt so scared and helpless. I consulted with some rabbit experts, who thought tooth spurs might be forming; but, if they were, I didn't want to risk putting her under anesthesia to remove them. Instead, I began chopping up her pellets so that if she were to choke again, which she has, the pieces would be smaller. I also started supplementing her pellets with "gruel" (Oxbow's Critical Care). Throughout each day, I prop Nika up to eat and drink, sometimes spoon-

feeding her or giving her water from an oral syringe if she's having trouble bending over, then wipe food and water from under her chin.

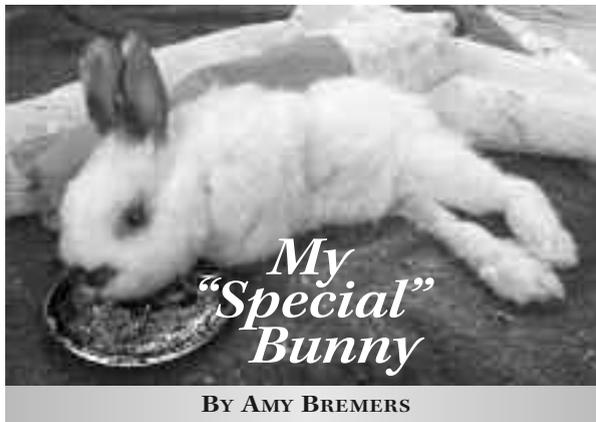
Two or three times a week, I do a load of Nika's "bunny laundry"—urine-spotted towels and wash rags.

And the grossest thing to me: I help Nika to eat what I've dubbed her "pudding"—what's supposed to be cecal pellets but are, in her, a slightly different consistency.

I sometimes get asked how I will know if Nika is telling me to let her go. I usually reply that I'll just know. Marinell Harriman wrote, though, about the "three As" for quality of life.[†] If a rabbit has an appetite, has a positive attitude by showing interest in her surroundings and in grooming, and shows affection, then she is most likely happy and fairly well-adjusted. Nika still fits this description.

Her appetite on most days is fine. She eats her hay and veggies and, most of the time, her gruel; sometimes I have to mix it with a little oatmeal or mashed banana. She loves her pain medicine, licking the oral syringe up and down after she's finished what's in it, although she hates her other meds. I mix them into her gruel most of the time, but sometimes it takes a lot of oatmeal to mask their flavors.

Attitude-wise, she has one! She tries to clean her face and chin after eating or drinking or having medicine stuck in the corner of her mouth. Her eyes and head follow me around the room as I'm cleaning or getting her food ready. When I ask her if she's hungry or wants her medicine, her head perks up. When I travel, I drive



instead of fly so that she and her mate, Arley, can come with me. From the bottom half of a carrier in the passenger seat she looks around, sniffs, and moves her ears to new noises.

She's also quite the conversationalist! Through her movements and sounds, she tells me when she's hungry, thirsty, uncomfortable, frustrated, and happy. When she falls over, she grunts to me to help her up; when she doesn't want any more food, she pushes away her food dish; and when she wants water, she licks the air.

And she is definitely affectionate. She grooms Arley all the time and purrs when he mooshes up next to her and when he grooms her face and tummy. When she kisses me, her loud snorts sound like she's almost desperate to do so! When she falls asleep next to me, knowing she's safe, she twitches and gurgles as she "dreams." On cool evenings I lounge on my patio with her across my chest (not worrying about her jumping off!) and her cheek resting against mine. As I pet her other cheek with my thumb, she alternates between honking contentedly and covering my face with warm kisses.

I do a lot for Nika, but I think she does more for me. She teaches me what loving unconditionally means. She lets me know when she has missed me and that she needs me. She makes me laugh with all her noises and expressions. She serves as an example to me of resilience and determination. She helps me relax, napping with me on a waterproof liner on my couch. She keeps me company when I work from home, stretching out on a towel in a clear storage tote on my desk. She loves me and trusts me so much—and that is the greatest feeling I've ever known.

Taking care of a special-needs bunny is hard. But when I look at Nika, I smile. ■

† <http://www.rabbit.org/journal/2-8/quality-of-life.html>

~ A Tale of Two Rabbits ~

(continued from page 2)

YET WHILE THINGS IMPROVED for Eddie, the prospect of keeping Grace and Isadora confined to one room seemed unfair. These sweet bunnies needed room to roam. So it happened that the needs of Eddie and the needs of Grace and Isadora pointed to the same conclusion: the girls must have a home of their own. Not just any home, but the *perfect* home for these delightful and brave rabbits who had been through so much.

Jen composed flyers with a brief history of the girls, one of which was given to a kind woman who had a wonderful daughter. And so it happened that Isadora and Grace were introduced to the two people whose home and hearts they were destined to inhabit. Jen knew when she met them that they belonged to that special type of person known as "Rabbit People," and that Grace and Isadora would find a very happy home with them and would, in return, bring them much happiness. ■

~ Epilogue ~

A FEW YEARS HAVE PASSED since Grace and Izzy found their Forever Home, and many lives have been transformed. Their human companions relish the delights of rabbit friendship and love, whilst Grace and Isadora revel in the love of their human family, and the pleasures rightly lavished upon them. It is an arrangement of mutual joy which extends to all who have the great good fortune to encounter this felicitous home.

Alternative Therapies (continued from page 7)

was offered acupuncture along with continued pain medication. Her initial response to the treatment was mostly in her affect, appearing more comfortable (i.e., less pain) and was less depressed and was eating better almost immediately. After the second treatment, she was using her right rear leg and hopping about. Her left rear limb showed improvement as well: both deep pain and voluntary movement were noted. In other words, her response to a toe pinch indicated improving neurological function of the limb (in paralysis, such response would be absent). Although the Dutch bunny still has some residual urinary issues, she is now able to hop with both rear legs and is able to use the left rear foot to clean her ear. Her quality of life is significantly improved, and she continues to do well a year and a half after her initial presentation to our clinic. ■

Resources

- Midwest Microcurrent: www.midwest-microcurrent.com
- Chi Institute: www.tcv.com
- Vectra Genisys Laser: www.shor-line.com

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Teresa Bradley Bays, DVM, CVA, practices in Missouri at the Belton Animal Clinic and Exotic Care Center. She is the author of numerous articles and book chapters on exotic animals and is the senior editor and coauthor of *Exotic Pet Behavior: Birds, Reptiles, and Small Mammals*. Dr. Bradley Bays speaks nationally and internationally on exotic animal medicine and surgery. She is also actively involved with community service as veterinarian for HELP Humane, veterinarian for an animal facility at a domestic violence shelter, and founder and coordinator of the Pajamas for Foster Kids Program (www.beltonanimal.com for additional information).

RABBITS AND HARES of different kinds—I speak here of species rather than of breeds—are far more numerous than I ever imagined. Unfortunately, many of them are on the edge of existence. The Lagomorph Specialist Group of IUCN (International Union for the Conservation of Nature) maintains a “red list” of all endangered rabbit, hare and pika species. It lists some 80 of them whose existence hangs in the balance. Their threat levels range from “extinct,” to “critically threatened,” to “near threatened,” to “vulnerable,” to “of least concern.” Astonishingly, 52 rabbit and hare species are on the list. The Riverine, the Volcano, and the Sumatran rabbits are just three of the most imperiled.

Riverine Rabbit (*South Africa*)

DISTINGUISHED BY ITS white eye rings and a black streak running from the corner of its mouth across its cheek toward the ear, the Riverine rabbit is nocturnal and solitary. It weighs between 3.5 to 4 pounds, and the females produce a single litter per year, usually of one kitten only.

The Riverine inhabits a very specialized environment along the banks of rivers in the central and southern semi-arid desert of

Vanishing Relatives: Rabbit Species on the Edge

BY JULIE SMITH, PHD

South Africa known as the Karoo. This is the land where ancient aboriginal tribes of hunter-gatherer bushmen called the San once lived. Thus, the Riverine’s alternative name is the Bushman rabbit. It depends for food, shelter, and cover from both human and animal predators upon the vegetation that grows in the silt deposits produced by the seasonal flooding of the desert rivers. As a result, it seeks to survive along a very narrow floodplain where the soil is good compared to that in the rest of the Karoo. This puts the Riverine in fatal competition with humans, who have both ploughed over the Riverine’s habitat for cultivation and allowed overgrazing by farm animals, degrading the natural river environment and fracturing the Riverine’s population into isolated groups.

All Riverine habitat is on privately owned property. Thus, if the Riverine is to survive, conservation organizations must convince

landowners to practice responsible stewardship along the critical river zones, as well as to desist from hunting and trapping. The Riverine Rabbit Programme (RRP) is a private conservation group attempting to forestall the Riverine’s extinction by working with land holders.

Volcano Rabbit (*Mexico*)

WEIGHING JUST UNDER one pound (males) or just over (females), the Volcano rabbit is the second smallest rabbit in the world. Indeed, the only smaller one is our own nearly threatened Pygmy rabbit from areas in and near southern Idaho. Curiously, the Volcano is in some respects more like the pika than the rabbit: it has rounded ears and a barely visible tail (conspicuous only in infants); and it employs considerable vocalization in order to communicate with its fellows.

The Volcano maintains its precarious life in small social groups of 2-5 individuals on a mere 110-180 square miles of habitat on the upper slopes of four volcanoes in central Mexico. On these slopes, tall zacatón grasses grow in the rocky terrain under pine forests, which the Volcano rabbit needs for both food and shelter. Among these grasses the Volcano hides itself: it travels in run-



ways it has created through the grasses, and it digs shallow holes near the base of root clumps to give birth to its young.

Because the Volcano rabbit lives a mere 45-minutes from the largest city in the world, that is, Mexico City with a population of 21 million humans, it is highly vulnerable to the relentless human activities that destroy habitat and kill animals. Humans are encroaching from the city and rural settlements, and they are burning the zacatón grasses in order to create pasture and promote development. This in turn has fragmented the Volcano rabbits' habitats and turned the population into genetically isolated groups. Also, although illegal, target practice for bird hunting kills many of the Volcano rabbits. Conservationists in Mexico are attempting to enforce laws that restrict development in the Volcano's core habitats, establish buffer zones connecting these areas, and discourage wanton shooting.

Sumatran Rabbit (*Indonesia*)

THE ISLAND OF SUMATRA is home to one of the rarest rabbits on earth. Hidden in the mountain forests of west and southwest Sumatra, the Sumatran Rabbit apparently disappeared from human view from 1916 until nearly the 21st century. Only one confirmed sighting occurred after 1916, that is, in 1972, until the Sumatran's image was captured on film by one photographer and by camera traps set by wildlife researchers studying other animals.

The Sumatran is about the size of our European rabbit. It has dramatic black or dark brown stripes across its yellowish-gray body. Its ears are short and black. Rarely seen and even uncommon in its own habitat, the Sumatran lives a nocturnal life, feeding on the plants growing in the volcanic soils of the forest floor. Researchers are uncertain whether it exca-

vates its own burrows or uses those of other animals. They know nothing of its social or reproductive behavior. Clearly it has low tolerance for human disturbance. Unfortunately, humans are now taking over the Sumatran's living range to make way for coffee, tea, and cocoa plantations. Because the area where it was most recently sighted on film is a national park in the Barisan mountains of Western Sumatra, wildlife researchers are urging that development be controlled in that area and that the Sumatran rabbit become the subject of study and conservation.

The Riverine, Volcano, and Sumatran rabbits each evolved to make its way in a very specialized environment, hidden and inaccessible, out of the way of humankind. But of course, we eventually found them out. And now we must remember that the world belongs to animals too, even to those who might not wish to share their lives with us. ■

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Riverine Rabbit: Tony Camacho/Science Photo Library
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Bibliography

- Lagomorph Specialist Group.
www.ualberta.ca/~dhik/lsg/lagomorph_red_list.htm
Chapman, J. A. and John E. C. Flux. *Rabbits, Hares and Pikas: Status Survey and Conservation Action Plan*. (1990). Gland, Switzerland: IUCN/SSC Lagomorph Specialist Group.
Meijaard, E. & Sugardjito, J. (2008). *Nesolagus netscheri*. In: IUCN 2012. IUCN Red List of Threatened Species. Version 2012.1 www.iucnredlist.org. Downloaded on 11 October 2012.
Mexican Association for Conservation and Study of Lagomorphs (AMCELA), Romero Malpica, F. J. Rangel Cordero, H., de Grammont, P.C. & Cuarón, A.D. (2008). *Romerolagus diazi*. In IUCN 2012. IUCN RedList of Threatened Species. Version 2012.1 www.iucnredlist.org. Downloaded on 11 October 2012.
South African Mammal CAMP Workshop. (2008). *Bunolagus monticularis*. In: IUCN 2012. IUCN Red List of Threatened Species. Version 2012.1. www.iucnredlist.org. Downloaded on 11 October 2012.



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Education one-on-one

RABBIT PEOPLE have a lot of things in common, and one of them is a compulsion to share the facts about their bunnies. All have stories to tell, and all like to show pictures of their bunnies.

In today's Internet age, everyone blogs and twitters and uploads their pictures and videos for the world to see. There are endless opportunities for rabbit people to educate the public.

As always, our goal is to get maximum information out to the largest number of people. The more people who accept the fact that rabbits are worthy of our kindness, respect and consideration, the more rabbits will enjoy the lifestyle in a human house that they so deserve.

Additional opportunities may be encountered in our daily lives. The sentiments you express face-to-face can sometimes have more impact on your pupils than your online presence. After all, you look and act like a sensible person. Maybe what you are saying about a rabbit in the house isn't so irrational.

Grocery checkout: Here is an excellent opportunity to educate everyone in line and within hearing distance. It usually starts with a small-talk comment from the checker, "You must really like salad!"

The reply is, "This is for my bunnies.

They would be really disappointed if I came home without their veggies."

Not only are you saying that you care enough about your rabbits to purchase nice fresh, and sometimes expensive, produce to feed them, but you are also acknowledging an emotion, disappointment, which implies that your bunnies have high expectations, based on your established routine. Otherwise there would be no disappointment when the veggies didn't show up. Not wanting them to be disappointed means you care care about their emotions.

That may be as far as the conversation goes, which is just fine. You've planted three seeds of thought: Bunnies deserve the best; they have emotions; and humans care about them.

If someone asks you for more details, you can continue with the delights of living a house rabbit.

Veterinary office: In the early days of HRS, it was a real novelty to see a rabbit in a veterinary office. The very fact that one would take a rabbit to the vet drew a lot of attention.

In the late '80s, Beth Woolbright, with her rabbit Patrick on her lap, was often seen in our vet's waiting room. She was usually surrounded by curious people. They asked questions about rabbits as house pet and marveled that she treated Patrick with the

same regard as a cat or a dog. Beth seized upon these opportunities to teach.

Today, it's no longer a novelty to see a rabbit at a veterinary clinic, and people don't gather around every rabbit. But many potential rabbit adopters may still find their first exposure to rabbits while waiting in the lobby of a veterinary hospital.

Most veterinary offices (at least the ones where we take our rabbits) now have pamphlets provided by the local HRS chapters, and several rabbit people are usually in the waiting room talking to each about their animal companions and what brings them to the clinic that day. Other pet owners, overhearing the conversations, are inadvertently learning about bunnies. Often one of them will venture a comment like, "I can't have a bunny because I have cats."

That opens the door to a conversation about how well cats and rabbits can get along. You might also mention that it's possible for a rabbit to have a good relationship with a well-trained dog.

Educating one-on-one doesn't mean that everyone you talk to at the grocery store or the veterinarian's office is going to rush out and adopt a rabbit or send a donation to HRS or volunteer time at the local animal shelter, but the small insights that you share may have a positive effect in some way at some point in the future.

—MH