



The Wildlife Watch Binocular

PO Box 532, New Paltz, NY 12561

Spring/ Summer 2021

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DEMYSTIFYING BATS

BY BINDU GOPAL RAO

All Photos Courtesy of Avian and Reptile Rehabilitation Center – ARRC



Even as the COVID-19 pandemic rages on, the rumor that the coronavirus in people was caused by bats is just a myth, like many other false accusations that cause the only flying mammal to be feared rather than appreciated.

Bats are nocturnal mammals who are unfortunately very misunderstood. 'Blind as a bat' is probably the most abused phrase. Did you know that bats are not blind? Well if you did not, it's time to take a reality check. Bats do not fly into your hair or eyes nor get stuck to you. Bats have extremely good vision and can fly as close to your nose tip and go back without touching you.

Dr Bandana Aul Arora, a mammalogist and conservationist who has decades of work experience with the Nicobar flying fox and other threatened species in the ecosystem

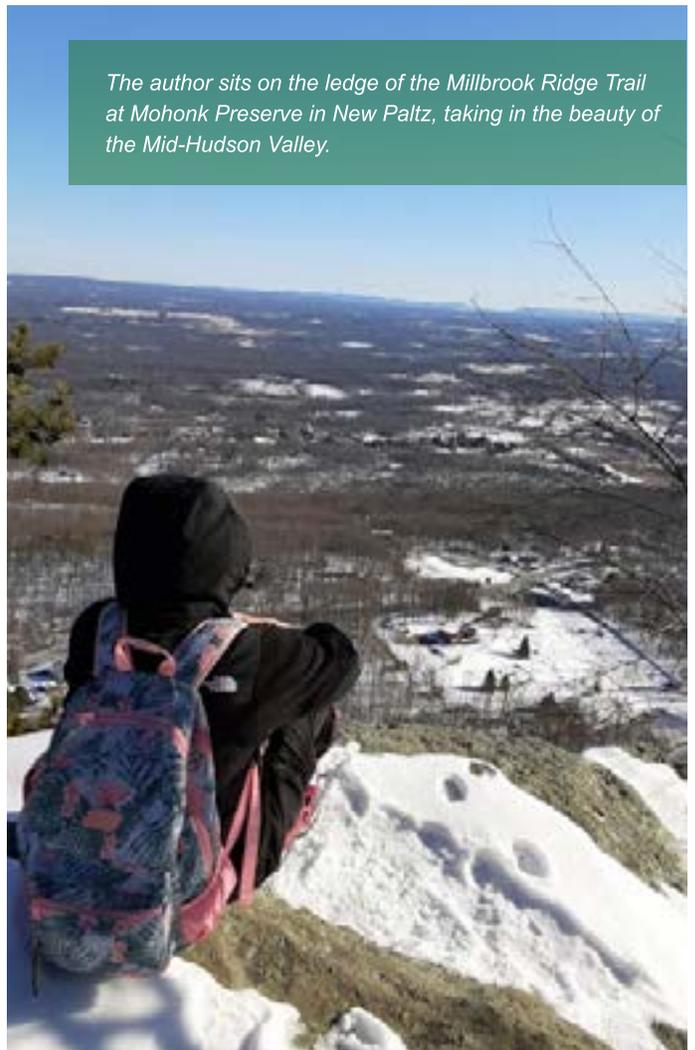
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A YEAR IN COVID: WHAT NATURE TAUGHT ME

BY CYNTHIA HACKER

It's been one year since our world changed, and many of us are reflecting on the last 12 months. March 2020 brought a threat to our shores we had never experienced. For the first time, we faced our own mortality in a very real, very scary way. **I had always found peace and healing in the outdoors, but this year many of these spaces became quite crowded. I needed to go "off-the beaten path." It was here that I found a simple, life-affirming connection and comfort with my "other neighbors." The nonhuman kind.**

The author sits on the ledge of the Millbrook Ridge Trail at Mohonk Preserve in New Paltz, taking in the beauty of the Mid-Hudson Valley.



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Kin and Ki

Biologist and author **Robin Wall Kimmerer** writes in her book, *Braiding Sweetgrass*, that we reserve pronouns of personhood, such as, “he,” “she,” and “they” for humans, leaving a nonhuman species to be an “it.” Wall Kimmerer wanted a word for all beings—plants, animals, landscapes, even elements like rain or snow. English already had the perfect word for plurals with kin, a word most are familiar with, but not for a single nonhuman being. Searching her native Potawatomi language for inspiration, **Wall**

Kimmerer found the simple word “ki” to describe any living being. “So that when the robin warbles on a summer morning, we can say, ‘Ki is singing up the sun,’” or “Ki’s branches sway in the pine-scented breeze,” she wrote.

In these quieter places, each individual plant, bird, and insect—each ki—began to feel like an old friend, and every visit was a new chance to see all my new kin together and be invited into their homes.

Spring 2020

Photo credit: Kieren Wood (unsplash)



Red-winged Blackbird

In spring, life was beginning in the outdoors, while inside, we heard the sad stories of human life waning. It comforted me to see and hear all the new life of Spring in a place called “Giant’s Ledges Pocket Park,” a parcel of land that spans the northern part of the Shawangunks, connecting the iconic Bonticou Crag to the hamlet of Rosendale. One early April evening, when ki’s (Spring’s) magic was already in full bloom, I took the gradually climbing, woody trail, carpeted in fragrant, soft pine needles, to an inviting rocky cliff, where one can

perch and look out on the valley below. I sat on the summit listening to the sounds of kin around me. The first to hit my ears was the music of the peepers in the leafy green chasm below. It is one of my favorite sounds in nature. These kin tell you that life is renewing and warm weather is coming. It’s funny, as you sit and begin to listen to the sounds of nature around you, it is as if a veil suddenly lifts, and underneath, you discover even more layers of “music.” I then recognized another familiar voice—it was the song of the Red-winged Blackbird, a friend I knew well from grassy flatlands. Ki sings a very strong, beautiful melody, easily recognized by his sharp, chirpy notes. Ki’s bold red and black colors also make him easy to spot for my not-so-sharp eyes.

Pretty soon, the forest was alive with song. Birds have been around a long time; they are resourceful and they know how to survive. They thrive because they persist. Here, kin were singing out with the spirit of life. At this same moment, in the world of the human, kin were singing out from the streets, from porches, from windows—it was the time of the 7pm “applause” for healthcare workers. It’s no secret how separated most of us have become from the natural world, but here, I could feel the two songs mixing together. Perhaps all kin cry out in the same vein. We are so much more connected than we realize.

Summer 2020

Summer came and brought with it more lush green growth, more achingly beautiful days, and cerulean skies with what I like to call cartoon-perfect “Simpsons” clouds. Being outside was easy, and we enjoyed a little more socializing. This time, my attention was captured by kin of the six-legged variety. It began with the arrival of the dragonflies in the late spring. On New Paltz’s River to Ridge trail, hordes of them flew overhead, with gossamer wings and zigzag movements. I stood, my mouth agape, mesmerized as they danced overhead, their flight patterns reminding me of fancy airshows. They would zip through the air at full

speed in one direction, then inexplicably and seamlessly U-turn toward the opposite way. I never knew they could fly so high or so fast, and I wondered what their movements communicated to each other.

At the Peterskill area of Minnewaska, I was treated to more dragonfly action, seeing them land on streams, leaves, and even my arms in the warm summer sun. Kin were sometimes neon blue, magenta, or even green—and they stared at me with their mysterious alien eyes. It feels like a gift when a dragonfly alights near you, or decides to buzz

(Photo credit: Denise Lawrence)



A neon-blue dragonfly alights on a leaf in the Peterskill area of Minnewaska State Park, New Paltz.

around you. You feel like you have been visited by someone special. Having evolved over 300 million years ago, they are one of the oldest creatures on earth, and these kin have captured our fancy for a long time. Folklore is filled with their stories. What's most astonishing is ki's ability to transform. A dragonfly will

molt and change an average of 17 times, with most of the changes occurring during the time they spend underwater before they even take flight. Ki's amazing flight is the direct result of the ability to change. We, too, must learn to change with grace so that we may continue to evolve and thrive.

Summer continued to wow me with insect kin of all types—the fireflies at night reminding me there is still hope even in darkness; the monarchs, with their regal saffron-oranges and striking blacks, gracing me with their late-summer visit; and the occasional spotting of the praying mantis, reminding me that it is good to get very still and sit with your thoughts. **Like summer, these beauties are only here for a short time. Next year, we will get to know their children. Until then, we make peace with saying goodbye to the warm embrace of summer nights and learn that life is, indeed, ephemeral.**

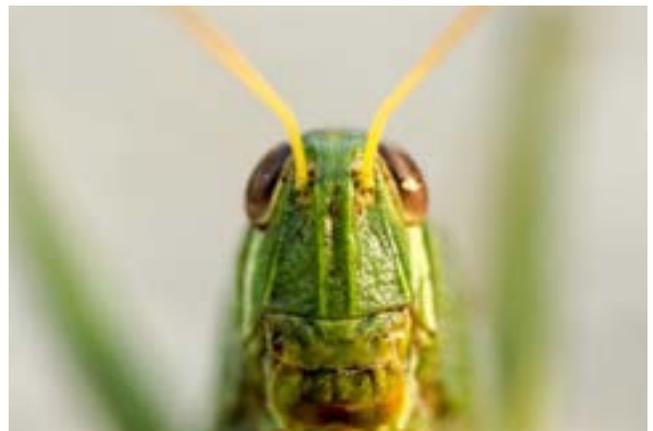
Fall 2020

Hudson Valley Fall 2020 was another masterpiece, and predictably brought throngs of tourists to view it. I was schooled by others not to get too angry—I mean, can you blame them? Who wouldn't want to see this marvel of color? And, truthfully, it's just another reason to feel and express gratitude for being able to live here and see it every day. So I did.

I often headed over to the Shawangunk Grasslands in Wallkill. One would think miles of flatlands and grasses would be boring, but I soon learned that was not the case. Look deeper into the grass and you will see that it is not one, but a multitude of different plants, each ki with another shade of golden, blending together in glowing harmony, lit by the sun. Here amongst the grasses, I found some very cool residents. Chittering on the dry ground, boing-boing-ing around my knees, there was Grasshopper, a new teacher and friend. Almost looking like a piece of dried grass himself, he played among my feet, bouncing along, occasionally springing into a short flight around my face, and then landing again in the grass. I found ki to be a very whimsical creature, though I knew well enough not to think the behavior was for my entertainment. Grasshoppers, I learned, are even older than dinosaurs; these kin have very strong survival skills.

Curious about my new friend, I began to read. I learned that ki has the amazing ability to catapult, jumping the equivalent of a football field. Ki is

Photo credit: Boris Smokrovic
"Grasshopper's face" (unsplash.com)



also a music-maker, creating individual rhythms through stridulation, or rubbing their hind legs and wings together. Then I found something even more interesting in an article by NPR titled, "What an Insect Can Teach Us About Adapting to Stress." Normally solitary creatures, grasshoppers only form swarms under stressful conditions. The process of stridulation not only produces pretty music for my ears, but also produces serotonin for the grasshoppers, allowing them to feel good, and thus, more sociable. When these kin cluster together, they can share resources and survive; this "new version" of themselves can literally save them. We, too, can no longer see ourselves in the same way. Like the grasshopper, we must accept and grow, to survive.

Winter 2021

Nature continued to bless me with so many gifts that this winter felt like one continuous Christmas. Early on, I got some of my old hikes back with a much less crowded Minnewaska. Now trained to really look at things, I delighted in noticing how in the first month of winter, the previous

three seasons were also present. When I fixed my gaze upon the forest floor, I saw autumn leaves, their now tan skins mingling with the dark soil underneath. Remnants of the first snowfall dusted the leaves and remained in patches on logs, branches, and tree roots, its fresh white contrasting

with pillows of bright green mosses. I could even see summer buds, though now blackened by winter, down in the brambles by the stream. Rocks with glints of reddish orange peaked out along the streambeds, adding even more color to the unique collage. The air had a freshness like no other time of the year—with the rushing water, dripping snowmelt, and carpets of moss and lichens, everything felt alive. It was a wonderful time to be in the forest.

Photo Credit: Cynthia Hacker



In mid-winter, ice created castle-like formations on the Upper Awosting Trail of Minnewaska State Park, New Paltz.

For Christmas, I received the gift of meeting my first owl at the Grasslands. One day, I found the parking lot unusually crowded. People were everywhere with big, clunky camera set ups, and most trails were closed. I was quickly informed by the photographers to be quiet, as the Short-eared Owls were wintering here. Since they are large birds, I spotted one within seconds, but coincidentally, I had just been gifted a pair of binoculars from a local swap group. I eagerly took them out and saw my first owl face up, close and personal. Perched on one of the many posts in this popular birding sanctuary, ki was both majestic and strange, with a concave face that was at once beautiful and odd. I watched ki twitch that face back and forth, eyeing the land, until taking flight once again with a grand spread of his wings.

Photo credit: Vincent van Zalinge (unsplash.com)



Short-eared owl

In January, no sooner had I commented on what a nice, balmy winter it had been than Winter decided to be, well, winter. A long stretch of snowfall kept the Hudson Valley wrapped in a powdery white blanket for much of February. A self-professed non-fan of snow, I groaned. Winter was a long season to begin with, I thought, and now with COVID-19 numbers on another very scary rise, I worried how I would ever get through. But soon enough, I was seduced by the beauty of the white stuff and I did something I'd never done before: I fell in love with winter. I couldn't get enough of it—the way the snow glistens in the sun, the way snow will let the wind create works of art on its surface. Walking in the woods on a snowy day was like entering another world, a hidden treasure. In a way, winter is the most personal of all the seasons. The quiet is so close, it feels like a friend, a sort of ki of its own.

On what we knew would probably be the last big snowfall of 2021, my partner and I ventured into the woods as the flakes fell, and played in the Narnia-like magic that is winter. I purposely went off the trail, submerging myself in the glitter I knew wouldn't be here that much longer. I even made a snow angel and lay on my back, studying the treetops. I couldn't believe it. I would miss winter. Ki had taught me to allow more stillness, to get between the spaces of my thoughts. To be present, and experience a deeper knowing.

One Year 2020-2021

How will we emerge from this experience? I would like to think I learned a little bit more about just how precious life really is—and that there are a lot of things I thought were important that really aren't. My friends in nature, my kin, were my best teachers. Who were some of yours?

Please let us know the answer by sending your personal wildlife communion experience to Wildlife Watch at wildwatch@verizon.net – We would love to see it, and may publish it! We also welcome your photos and their back stories.

Cynthia Hacker lives in New Paltz, NY. She spends her free time exploring the many wild places that grace the area. She is a lover of nature and a nature writer.

This article is also published in www.honeyguidemag.com



of the Nicobar group of islands, India, is dispelling many of these myths. He says, "Bats like other mammals give birth to young ones or pups and are very protective mothers; fruit-eating bats carry their babies till they are independent. They are extremely handsome, have beautiful ears and very charismatic nose leaves." Research is taking place now to understand how they locate their prey. To find prey and their roosts, the method is called echolocation and is mostly seen in insect-eating bats. A bat can eat three times his or her weight each day, so they clearly have no appetite problem!

Rohit Chakravarty, a Ph.D. student at Leibniz Institute for Zoo and Wildlife Research, Berlin, Germany, explains, "Bats perform two main functions that benefit humans and the ecosystem. Fruit-eating and nectar-drinking bats are pollinators of many tropical trees. Three examples of such important trees in the Indian context are some species of mangroves, wild bananas and the mahua tree. This tree has important medicinal properties.

Insect-eating bats eat tons of insects that are pests in rice, corn and cotton farms. These come from studies in the US and Thailand. New studies have also shown their importance in controlling pests in vineyards in France and Chile. Once they have had their fill in the night, they poop in heaps in caves which make for a useful natural fertilizer. Guano mining is an industry (sometimes sustainable, but often not) mainly in Southeast Asia."

Bats are incidentally extremely gifted and don't have hollow bones like birds. Bats are the only mammals that are capable of a true powered flight and fly with their hands, not their arms. They live in huge colonies and like to stay in slightly dark places like caves, beneath bridges, in trees and abandoned buildings because it is cooler. Additional facts: They cannot tolerate extremes of weather. They give birth once a year and do not pair for life. There are about 1000 species of bats worldwide, India has about 119 species. The size range is large: the smallest one, the bamboo bat, is only as big as your thumb, while the flying fox, a fruit eater, has a wingspan of over 5 feet!

Insectivorous bats also actively prey on [mosquitoes](#) - a known disease-carrying vector that affects humans directly.

A recent [study](#) has shown that bats serve as indicators of potential invasive insect species in Spain. **Baheerathan Murugavel**, a Ph.D. student at the Indian Institute of Science Education and Research Thiruvananthapuram, India, said, "To my knowledge, the best practice to manage invasive species in any landscape is to identify them before getting invaded and keep them controlled. Based on the diet of insectivorous bats, researchers in Spain have recently identified a rice pest weevil which is an insect native to North America, with the potential to become invasive in the future. The researchers point out that bats could act as potential natural samplers that could detect (and possibly control) pest species in important growing areas of cash crops, such as the rice paddy."

Dr. Arora has worked extensively on the *Pteropus faunulus* or the Nicobar flying fox which is endemic to the Nicobar Islands and has been rediscovered after 100 years.

It is distributed only in six of the islands there. Unfortunately, this solitary roosting fruit bat is locally extinct from Car island, where it was first seen. As part of her research, she has found 22 species of bats in the Andaman and Nicobar Islands. She said, "**Bats do have direct threats as bats are poached for their meat that is used for medicines, as well as habitat loss. Indirect threats include frequent human entry into caves, and adverse myths that they are disease spreading and blood sucking creatures are other threats.**"

And while bats are resistant to several viruses, the coronavirus is not really something that has come from bats. The Bat Conservation Trust in UK also confirms in this [COVID-19 and Bats - Bats and disease - Bat Conservation Trust](#). "The exact wildlife to human transmission route for SARS-CoV-2 virus is not known as yet. There are two main schools of thought both with adequate support. A precursor of SARS-CoV-2 called RaTG13 (both shared a common ancestor probably 40-70 years ago) originated in a family of bats called 'horseshoe bats'. RaTG13 by itself is not known to infect human lungs because it cannot bind to the lung epithelial cells. Some molecular studies have shown that this virus went into an intermediate host, most likely a pangolin, where it recombined to become SARS-CoV-2 which can infect human lung cells. This view was later challenged in



R.O.C.K. - Rehabbers Offer Care and Kindness

The **Wildlife Watch Hotline - 877-WILDHELP** receives hundreds of calls every year from across the country, and a few from Canada. Police departments, conservation agencies, SPCAs, veterinary offices, and federal, state, and municipal offices have referred callers to Wildlife Watch for help.

Your contribution to Wildlife Watch will help us to **expand our volunteer service by allowing us to cover phones 24/7 and update our lists as new wildlife rehabilitators come on the scene.**

THANK YOU TO WILDLIFE RESCUERS AND REHABBERS IN SOUTH CAROLINA

Calls have been pouring in since the beginning of May. But the day after Memorial Day was perhaps the busiest day we've had so far. That day a call came in from **Steve Howell** in South Carolina. Steve had scooped up a tiny deer in the middle of a road on a dark night.

Photo Credit: Lora Avant



Lora sent this photo with Steve's little buck (front) who is playing with 2 other orphaned male fawns.

Photo Credit: Lora Avant



The fawn would have been killed if he hadn't intervened. He took the fawn home, tried to find help and discovered our hotline number.

We gave him several numbers of deer rehabbers in his area, and at 10 pm, **Lora Avant** arrived with her husband to bring the little deer back to their center. You can see that it was difficult for Steve to let the baby go!

Steve was so impressed with Lora that he called Wildlife Watch back to thank us for the referral.

Of all of the animals that are found, fawns are the ones that evoke the most emotion in people.

First there's surprise or shock upon seeing the fawn, then there's an overwhelming need to protect the fawn, along with a desire to nurse. While we normally suggest that people put the fawns back where they found them, there are times when circumstances make it impossible.

We're so happy that our hotline allows us to connect the compassionate public with nearby wildlife rehabilitators.

We later contacted Lora to see how the fawn was, and ask if we could let our readers know of a wildlife rehabilitation center in her area.

She recommended **Wild Things** in Georgetown, SC. Lora wrote: *The little buck is doing great! He is drinking about 2.5 ounces at each 4-hour feeding and has made himself at home with the two other little buck fawns. They are jumping and playing and nibbling on the grass.*

Please visit their FB page here: <https://www.facebook.com/wildlifefreedom1>

And their website: https://wildthingsfc.org/?fbclid=IwAR3MgJTnB0Xu-MUcMIAhVsbjWXNPMudjz50o6bvroAxtsb3_O8sV8bIPALQ

another paper that showed evidence that the SARS-CoV-2, in fact, originated in horseshoe bats in China 40-70 years ago and has the potential to infect humans directly," says Chakravarty.

Viruses of such zoonotic origins crossing the species-barrier and reaching humans is called a spillover event and it is not something that happens frequently or easily. "One should look closely to ponder what could trigger such spillover events in order to prevent such pandemics in the future. **From COVID-19 it is almost certain that human induced events are likely to be reasons for this. Events like habitat destruction, over-exploitation of wildlife resources, unhygienic wet market systems (that make different wild animals interact) causes wild animals to get over stressed and puts them in close contact with humans.**

To summarize, "To prevent future pandemics, we need to focus on how humans caught these viruses

(routes of transmission) instead of blaming the animal origins itself," states Murugavel.

Bats are certainly misunderstood, it's time for us to change our attitude towards this intelligent and vital mammal.

Bindu Gopal Rao is a freelance writer and photographer based in Bengaluru. She has a special interest in the environment. She enjoys birdwatching and looking for local and unusual stories in any destination. You can follow her on Instagram @bindugoplr Rao and view her work on www.bindugopalrao.com.

Editor's Note: This article was written prior to concerns that the novel coronavirus might have originated in a lab in Wuhan, China. So far, its origin is unknown and the jury is still out over whether it was caused by a "spillover" event or a lab leak.

The Wildlife Watch Binocular

is published quarterly by Wildlife Watch Inc., a 501(c)3 Corp. P.O. Box 562, New Paltz, NY 12561 Phone: 845-256-1400, e-mail: wildwatch@verizon.net Website: www.wildwatch.org Anne Muller, Editor We welcome letters/articles/photos for consideration. Contributions are tax-deductible.

WILDLIFE WATCH NEEDS YOU!

Wildlife Watch needs your help more than ever to continue providing our vital wildlife hotline service to the public. We receive calls from across the country, and occasionally from Canada, from people needing help with injured and orphaned wildlife. Our easy to remember number 877WILD-HELP is recommended by veterinary offices, SPCAs, and law enforcement agencies. Additionally, we publish the **Wildlife Watch Binocular** to inform the public about environmental impacts on wild animals, to highlight people who help them, to promote wildlife watching, and to engender understanding that all animals are individuals deserving of kinder treatment.

Will you help our work? YES

<https://wildwatch.org/contribute/>

Let's Go Wildlife Watching TIME WELL SPENT

BY CYNTHIA HACKER

Photo Credit: Wood Frog Virginia Herpetological Society



I love frogs! In the Hudson Valley, and in much of the east coast stretching from Georgia to Canada, we have "wood frogs," whose sounds resemble that of clucking chickens! I have a few places where I love to catch this amazing chorus. In a curious location on the Crag Trail and Bonticou Road intersection of Mohonk Preserve's Springfarm area, there lies a small body of water called a "vernal pond" that forms each spring. The wood frogs that gather there put on quite a show. The sound is almost

deafening! But make too much noise yourself, and they will stop. Give it a few minutes and they will forget you are there and once again begin to sing. I have found many of these vernal pools with singing frogs on other trails in Mohonk Preserve, as well, including the Overcliff Carriage Road, where I encountered clear cold waters with a whole slew of frogs at play.

To learn more about frogs, their habitats, and the calls they make, visit https://animaldiversity.org/collections/frog_calls

To help our work,
please donate here.



**NEED HELP FOR
INJURED OR
ORPHANED WILDLIFE?
CALL THE WILDLIFE
WATCH HOTLINE!
1-877-WILDHEL(P)
(1-877-945-3435)**

Wildlife Watch maintains current lists of wildlife rehabilitators around the country. Our hotline helps us to help hundreds of people and animals annually.

Please help us by becoming a Wildlife Watch member for \$25 annually and please make an additional contribution for the R.O.C.K. Project that will be put into a fund and used to help a rehabber help wild animals. R.O.C.K. Project funds will be distributed at our discretion up to the amount available.

You can contribute by PayPal by clicking here:

<https://wildwatch.org/contribute/>

- ✓ Contribute by phone with a credit card. 845-256-1400
- ✓ Contribute by mail: Wildlife Watch, P.O. Box 562, New Paltz, NY 12561

ONE'S TOO FEW - HOW ABOUT ADOPTING TWO?

BY ANNE MULLER

Not only will you doubly be helping animals who need homes, but you'll be providing quality of life for the guys you adopt!

My Mom used to say, "How would you feel?" and I've lived my life always asking that question. Early on, I realized that as much as I love animals, I'd hate to be the only human animal among other species—forever. A stuffed toy of a human wouldn't satisfy me for more than 5 minutes.

With my Mom's question in mind, I always had at least two of a species. It allowed me to be guilt-free when I had to leave for the day, and it also taught me the deep bonding between animals, their interactions, and their deep grief over the loss of their companion.

Starting in the middle of a long sequence of pairs of our precious dogs, we adopted Taco to be a friend for Suni, and when Suni passed away, we adopted Lulu (Louie) to be a companion for Taco, and when Taco passed away, we adopted Chico. Chico and Louie loved each other in their own way. Skipping over many of the wonderful moments they had

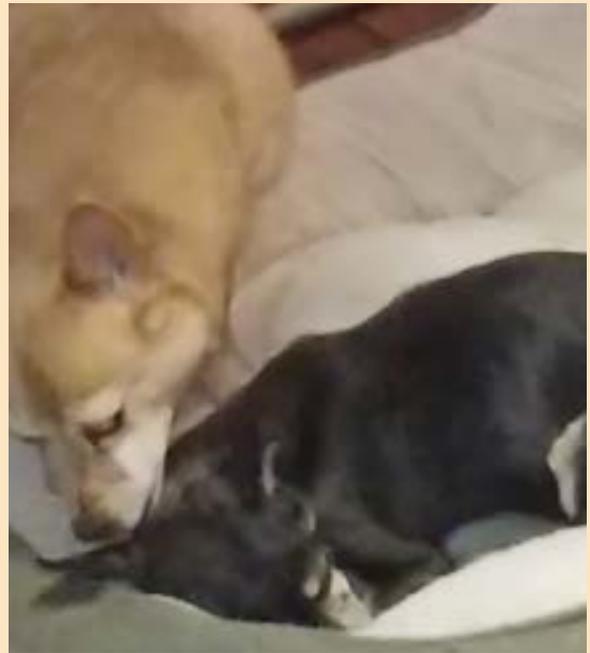


Photo Credit: Anne Muller

*Chico and Lulu (Louie)
Bonded Forever*

with each other, while Louie was in her final hours Chico did not stop licking her face. He knew she was going to die, and he stayed near her and continued to try to bring her back. I left for a bit to let them be with each other when Chico let out a loud, prolonged howl. I knew it was the moment of Louie's death.

Please double your adoptions, and by providing your companion a friend of his or her own species, it will exponentially increase the amazing joy and fascination that will be brought into your life as well.