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As the new year gets underway, it’s always a time I look back on the past season. It was a busy one. We treated a steady stream of over 5,300 injured, orphaned and ill wildlife — we even got in 73 animals in one day!

At this time, I also reflect on what I have seen and learned from caring for our wildlife. What I’ve learned is that the wild animals in our community need the Center’s help more than ever, as many more have come through our doors as a result of their paths crossing with ours. We have seen more animals hit by cars, ensnared in illegal traps and sickened by secondary poisoning than in years past.

Because of the increase of land development, which overlaps with their habitats, it is inevitable that the numbers will continue to grow.

What I’ve seen because of these more frequent human-animal interactions is the incredible compassion that you, our community has for the patients we see. I’ve also seen the incredible generosity that you have bestowed on the center in the form of monetary and in-kind donations, volunteerism and simple words of encouragement. We are grateful to you for all the ways you support the Center and the work that we do. Your contributions help us not only treat the animals, but also make necessary upgrades to our aging facility and expand our public outreach and education programs.

It is essential to us, as a small non-profit, to raise funds to continue to fulfill our mission of rehabilitating and releasing the wild animals in our community. There are various ways you can help us do this beyond making a donation. Please visit our web site at wcsv.org to find out more about these wonderful programs:

♦ Amazon Smile
♦ Amazon Wishlist
♦ A bequest or living trust
♦ Vehicle donations
♦ Employer matching program
♦ Through our web site

With gratitude,

Laura Hawkins, Executive Director

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Those words, spoken by the late Tom Eisner, an entomologist and author of *For the Love of Insects*, perfectly captures the central, guiding idea for this issue of *Tracks*. With our regular editor about to go on leave, last fall I was tasked with putting together the current volume. The more I thought about what types of wildlife to highlight, the more I realized that all of my story ideas featured somewhat unpopular animals. Often through a combination of fear, misunderstanding or a failure to see the bigger ecological picture, people have given the animals featured in this issue pretty bad reputations. I decided to use this opportunity to set the record straight and hopefully dispel some of the common stereotypes and misconceptions about the more charismatically-challenged species in our area.

My decision to feature coyotes on the cover was met with a combination of excitement and anxiety. At WCSV, we have a particular interest in the care and rehabilitation of predatory mammals, but many members of the public don’t view coyotes in a very positive light. I began to ponder why people generally feel so much more favorably towards wolves than they do coyotes, and realized that the terms “nuisance” and “pest” are usually only used to describe animals that have the ability – some would say the audacity – to live in human-dominated landscapes.

It isn’t challenging to be a wildlife advocate for species that live far away. It’s easy for those of us in Europe and the Americas, for example, to admire Asian and African elephants from afar and decry their persecution. But a farmer who is already economically disadvantaged can wind up losing his entire farm and livelihood in a single elephant raid. The reality of the situation is more complicated than making the simple decision to “save all the elephants!” and that reality holds true for almost all human-wildlife conflict.

The ease of championing wildlife as long as they stay over there seems to play a considerable role in the shifting attitudes towards, and differences between public opinion on wolves and coyotes. Biologist and coyote researcher Jonathan Way explains how the gray wolf became federally protected in the 1970s under the Endangered Species Act and has since “become the iconic animal associated with wilderness and ecosystem restoration.”

In contrast to wolves, which have been idealized as the fallen heroes of some remote, uninhabited landscape, coyotes have adapted to living in urbanized areas. As habitat encroachment and drought bring wildlife closer and closer to our doorsteps, the number of conflicts between humans and nonhumans continues to increase. By living among us, coyotes force us to confront what coexistence truly means, and the work it will take to actually achieve.

So if you come across an article in this issue about an animal you think you don’t like, I hope you will keep an open mind and read long enough to learn at least one fact that you didn’t know before. Or maybe you can share this issue with a friend or neighbor who isn’t as tolerant of wildlife as you are. I believe that the more we all learn about the creatures living alongside us, the closer we will get to finding some sort of common ground, to finding ways to truly and peacefully coexist.

“I find that I can love nature no matter how distant the individual organisms are from me, but I reach out and hope that I can shorten the distance and create some feeling of coexistence.”

Tom Eisner, Radiolab podcast, episode “Yellow Fluff and Other Curious Encounters”
**Patient Gallery**  Who’s on the mend at WCSV

Both of these *red-tailed hawks* were brought to us by Silicon Valley Animal Control Authority, unable to fly. We discovered that the one on the left had a severe fracture to its right wing, but after months of care we are happy to report that this hawk is flying beautifully.

This hawk is sharing its large outdoor enclosure with one that came in with an injury to its left leg that still has not fully healed.

This *American coot* was found limping down the road and was brought in to WCSV the next day. Luckily, we did not find any serious injuries and the patient is well on the way to recovery.

This *great horned owl* was stuck 20-feet up in a tree, entangled in some cord. After some truly heroic efforts on the part of his rescuer, the owl made it to the Center where we were able to disentangle him and treat him for parasites.
This **cedar waxwing** was found by the side of the road unable to fly. We found signs of an injury to its right wing, but are hopeful that with continued care it will soon be back in the wild where it belongs.

This **common raven** was brought in after it was found in the bushes, unable to fly away. Several crows and other ravens in the area had been found dead, so we were concerned about West Nile Virus. Luckily, however, this raven didn't present any symptoms of that disease and its condition is improving.

This **gopher snake** was brought to us by Silicon Valley Animal Control Authority with a large, 4-inch laceration to its side. Although treating this type of injury in snakes can be tricky, this one has started to heal nicely.

This **striped skunk** was brought to us by Sunnyvale Animal Control after it was found unable to move by the side of the road. Based on some fractured teeth and abrasions on its head, we suspect it had been clipped by a vehicle. Luckily, it has made a full recovery and will be released soon.

This **California scrub jay** was found by the side of the road in Morgan Hill unable to fly and not using its right leg. These birds used to be known as western scrub jays, but last year they were split into three distinct species: California, island and Woodhouse’s scrub jays.
Awesome Opossums!

By Holly Cormier

What are those creatures with long bald tails and rows of sharp teeth waddling through your backyard at night? No, it’s not some sort of large, mutant rodent. But if you guessed opossums, you would be correct! Opossums are the only North American marsupial found north of Mexico and belong to one of the longest-surviving mammal families on the planet. Our local Virginia Opossum has been around for over 70 million years! Originally we did not have opossums on the west coast of the United States, but they were intentionally introduced during the Great Depression. Because they are so adaptable, they have been able to expand their range to occupy much of the Pacific coast up into Canada.

Opossums are neither menacing nor easily agitated animals. Probably because of their looks, they are often misperceived. For example, people often think they carry rabies. In fact, it is extremely rare for them to carry rabies because their body temperature is too low for the virus to survive. They are practically immune to rabies, unlike almost all other mammals!

People are often afraid of opossums believing they are ferocious and mean when in truth they will not attack or chase your children or pets. When threatened or attacked, opossums may growl or bare their teeth, but they are known for “playing ’possum,” in other words playing dead. This is an involuntary response in which they roll over become stiff and then form a saliva around their mouths. This catatonic state can last up to four hours.

A final common misconception about opossums is that they dig up people’s yards. While opossums can be found sleeping in holes, they don’t dig their own and instead use holes already dug by other animals. They are generally nocturnal, but it is not unusual to see them out during the day, especially in winter when food can be scarce.

There are several ways opossums are beneficial to our local environment. First, opossums are a positive addition to any garden because they eat slugs and snails. They will also trap and eat black rats (also called roof rats). Opossums also help to clean up the environment by eating carrion (dead animals). They have an unusually high need for calcium, which they meet by eating the skeletons of dead rodents and other animals. Lastly, these amazing creatures eat ticks, including those that cause human disease. Opossums can eat over 95% of the ticks that land on them, and even if a Lyme-disease carrying tick survives a visit to an opossum it is less likely to carry the disease-causing bacteria afterwards because the opossum’s immune system is effective at fighting it off.

Some more fun facts about opossums:

1. Male opossums are called “jacks” and females are called “jills.” Young opossums are referred to as “Joeys.”
2. Opossums have superpowers against snakes as they have nearly complete immunity to the venom of rattlesnakes and other pit vipers.
3. Opossums have a remarkable ability to remember where food is, even better than rats, rabbits, cats or dogs!
4. Although we often drop the “o” when pronouncing opossum, a possum is actually a whole different species indigenous to Australia and New Guinea.
5. Opossums have prehensile tails which means that they can grasp with it and hang by their tails short periods of time.
6. Opossums have very poor eyesight and can only see about six inches in front of them, therefore they rely on their noses to get them around.
7. Opossums are one of the only mammals (other than primates) with opposable thumbs.
8. Typically, their lifespan in the wild is only two the three years.
9. Adult opossums are about the size of a house cat, ranging from 24-36 inches long and weighing up to 13 pounds.
10. Female opossums give birth to up to 50 babies at a time! These tiny, blind neonates then migrate into the mom’s pouch where only 13 can latch onto her teats. They stay in her pouch for two- to two-and-a-half months and then ride on her back for another one to two months.

I hope you have learned something new about opossums, and maybe even gained a bit of appreciation for them. Coexisting with opossums don’t take much more work than becoming more tolerant of their presence. So next time you see one looking for snails in your garden, maybe you will let it be rather than chasing it off. 😮
White-Nose Syndrome in Bats

By Ashley Kinney & Makda Atrat

An issue about misunderstood species wouldn’t be complete without an article about bats. Often described as “flying mice,” bats in fact belong to a completely different order of mammals than rodents. Chiroptera is the second largest order of mammals (behind rodents) and there are more than 1,200 recognized bat species worldwide.

Bats are found in most environments around the globe, except those in particularly cold regions. Some bats are essential pollinators, considered “keystone species” in their ecosystems. While the bats in Northern California don’t pollinate flowers or disperse fruit seeds, they perform the equally important function of controlling populations of insects that damage agricultural crops or carry disease. Reproductive female bats can often consume their body weight in insects every night! Scientists estimate that bats save farmers in the United States alone more than 3.7 billion dollars every year in reduced crop damage (Boyles et al. 2011).

But North American bats are currently facing an unprecedented threat in the form of a fungus called Pseudogymnoascus destructans. This fungus thrives in cold, humid environments, like those that bats hibernate in, and colonizes the bat’s skin causing a disease known as white-nose syndrome. The fungus can grow on the nose, wings and ears of an infected bat as it hibernates, causing the bats to wake up more frequently and burn through the fat reserves they need to survive the season. Without these crucial energy stores, infected bats starve and die. White-nose syndrome can also cause dehydration, breathing problems, the inability to regulate body temperature, and fatal tissue damage to the wing.

WNS was first documented in New York in 2006 and it has spread rapidly across eastern North America since then. It is estimated that over 6 million bats in the eastern United States and Canada have already died from the disease, and the mortality rates at some hibernacula (the caves and mines where bats hibernate during the winter) has been as high as 90 to 100 percent.

While the disease has primarily affected bats in the eastern region of the continent, WNS reached the Pacific coast in March 2016 when an infected little brown bat was found in Washington state.

In Europe, scientists have confirmed the presence of WNS in 13 species, but, interestingly, they have not observed any associated mortality. Similarly, in Asia – where the fungus is thought to have originated before humans unwittingly transported it to North America – bats have shown a strong resistance to WNS. Hopefully these resistant populations will help researchers gain insight into the dynamics of infection and transmission, so that we can help to curb the continued spread of the disease.

Sources
Coexisting with Coyotes

By Makda Arat

The coyote, North America’s Song Dog, is perhaps the most misunderstood and maligned of our native mammals. Coyotes have withstood decades of largely unregulated persecution, and despite being trapped, aerial gunned, baited, poisoned, snared, and scalped, they have endured. Indeed, they have thrived. Learning to coexist with large carnivores is a challenging and complex endeavor, but it is one that WCSV is particularly passionate about. As one of the only rehabilitation facilities in California that specializes in predatory mammals, it seems long overdue that we finally discuss this enigmatic and controversial species.

Despite the fact that rehabbing coyotes is difficult and expensive, WCSV’s hospital manager, Ashley Kinney, has always been up for the challenge. “Working with coyotes, getting to see first-hand how intelligent and social they are within their family units, I have always been fascinated by them,” says Kinney. She added that “they also serve a vitally important role in our environment, and despite the political battle that often ensues when it comes time for their release, getting to give these underdogs a second chance,” is one of the reasons why she got into wildlife rehabilitation 15 years ago.

Natural History

A more primitive form of Canis than both dogs and gray wolves, coyotes have roamed North and Central America for the last million years. Before European colonization of the Americas, coyotes were revered for their intelligence and resilience, often featuring as creator and trickster figures in the cosmology and folklore of many Native American and Mesoamerican peoples. It wasn’t until settlers from Europe brought with them their fear of canids that coyotes were recast as threatening and untrustworthy (Alexander and Quinn 2012).

This fear and hatred of undomesticated canids led to extensive wolf control efforts being carried out across the country, such that gray wolves have become regionally extinct from many of the territories they used to inhabit. The ecological niche left vacant in the wolf’s absence was readily filled by the highly adaptable coyote, which has since vastly expanded its range. Before the near-eradication of the gray wolf from the contiguous United States, coyotes were largely confined to the arid and open plains regions. Now, however, they can be found as far north as Alaska and all the way south to Panama. This vast territorial expansion was a direct result of human interference with the ecological and trophic balance.

But in exterminating gray wolves – whose populations would have naturally kept coyote numbers in check – and thereby inviting coyotes into their now-empty, food-rich territories, we perhaps got more than we bargained for. While wolves cannot exist in cities, coyotes have beaten us at our own game: unlike almost all other large predatory animals, the coyote’s behavioral plasticity allows them to survive, even thrive, in urban and suburban environments (Alexander and Quinn 2012). And therein lies the root of the problem. Because coyotes have proven that they can, and will, live among us, a general lack of understanding about this unique species has led to increasing numbers of largely preventable human-coyote conflicts. So let’s take a minute to learn a bit more about our wild canine neighbors.

The coyote’s scientific name, Canis latrans, translates to barking dog, a reference to the many vocalizations for which coyotes are known. Although the lone howl is perhaps the most iconic

These six coyote pups were found in April 2008 by a student at UCSC. They were spotted at the entrance to a den that was eight feet up a cliff face, and it took volunteers over three hours of working with pick-axes and other tools before they were finally able to reach these two- to three-week-old orphans. When they discovered how cold the coyotes were, the volunteers were able to confirm that they had truly been orphaned and needed immediate care. They were with WCSV for just under six months before they were old enough to be released.
sound made by this loquacious species, at least 11 distinct vocalizations have been documented in the adult coyote. In more urban landscapes you will hear them most often at night, but occasionally they can be heard howling or yipping during the day as well. They are even known to howl in response to passing vehicle sirens.

**COYOTES AND THE ENVIRONMENT**

As the largest carnivores in many environments, coyotes play an essential role in maintaining a healthy, functioning ecosystem. Urban coyotes have been shown to maintain and even increase the abundance and diversity of breeding bird populations through the suppression – either by predation or competitive exclusion – of smaller mesocarnivores like raccoons, skunks and feral cats (Fox 2006; Way 2012). It has also been shown that coyotes may help to regulate overabundant populations of Canada geese and white-tailed deer (Alexander and Quinn 2012; Fox 2006). As the dominant predator in many ecosystems, maintaining their trophic function “is predicted to be ecologically critical,” particularly in urban and suburban systems “that tend more towards bottom-up control” (Alexander and Quinn 2012).

Despite abundant research documenting the important ecological role predators, including coyotes, have in their environments, 86% of U.S. states currently allow unlimited hunting of coyotes, meaning there is no bag limit per hunter and no closed season (Way 2012). But even in states like California that don’t permit the unrestrained use of lethal force, many people still react to coyote sightings with fear and the belief that they should be trapped and removed from populated areas. Not only is trapping and relocating illegal, multiple studies have shown that the indiscriminate removal of coyotes (by killing) is ineffective in controlling coyote populations, and may actually make coyote “problems” worse.

**WHY LETHAL CONTROL DOESN’T WORK**

Unlike, for example, deer, rodents or waterfowl, coyote populations will naturally self-regulate. Although coyotes often travel and hunt alone or in pairs (in stressed populations, they may hunt in larger groups), most belong to territorial packs that have highly organized social structures. These packs are typically comprised of a dominant, breeding “alpha” pair, and subordinate “betas,” offspring born in previous years (Crabtree and Sheldon 1999). Coyotes are strictly monogamous, and even though female coyotes are physiologically capable of reproducing by about 10 months old, in unexploited populations they generally will not start reproducing until they are two- to four-years-old and achieve “alpha” status (Crabtree and Sheldon 1999; Alexander and Quinn 2012). However, when the population is under pressure from hunting, this social order is disrupted. Research has shown that “widespread killing of coyotes alters social structure, changes breeding patterns, results in more pups being born and greater recruitment to the overall population of coyotes” (Alexander and Quinn 2012). Furthermore, lethal control methods “may exacerbate conflict by creating a population favoring younger, less well socialized animals that are prone to exploit human sources of food” (Alexander and Quinn 2012; see also Connolly 1995 and Sacks et al 1999).

In other words, attempting to reduce the number of coyotes by killing them is a futile endeavor. As Kinney, explains, “it’s like cutting a sea star in half, instead of killing one you create two.”
There will inevitably be the occasional problem coyote that shows obvious signs of aggression towards humans and doesn’t respond to attempts to drive it off. But the indiscriminate cull the public usually demands in response to the presence of even a single problem coyote is far less effective than the selective removal and euthanasia of these problematic individuals (Sacks et al 1999; Connolly 1995; Mitchell et al 2004). Furthermore, recent research has shown that coyotes can cover 45-60 miles in a single night, which may lead to more sightings by the public and a subsequent overestimation of how many coyotes are actually present in an area (Fox 2006).

Most coyotes, however, tend to keep a low profile and avoid humans. Even in highly developed urban and suburban areas, coyotes seek out natural and undeveloped lands (Riley et al. 2002). But their natural fear of people is undermined when they are taught to associate humans with food. When six such problematic coyotes had to be trapped and killed in Vancouver back in 2001, all six of them were shown to have human food in their stomachs, including dry dog food, beef stew and perfectly cubed potatoes (Battiata 2006).

Though they are opportunistic carnivores and are able to consume a wide variety of foods, research indicates that even in heavily urbanized areas coyotes still rely on natural food sources like rodents, rabbits, insects and fruit for almost the entirety of their diet (Riley et al. 2002). The Cook County Coyote Ecology Project in Illinois, the longest-running study of urban coyotes to date, analyzed coyote scats sampled from both densely populated and undeveloped areas and found that the incidence of anthropogenic food sources averaged less than 2% (Gese and Morey 2007). Kinney reminds us that “coyotes aren’t coming into this area to take over, they’re opportunistic, so if they are coming into your yard it’s because you, or someone nearby, is leaving food out.”

**WHAT DOES WORK?**

Given that feeding coyotes, either intentionally or unintentionally, is almost always the source of bold coyote behavior (Fox 2006), one of the most important steps we can take towards achieving coexistence is to remain diligent about securing food sources and trash. “If humans are more responsible, then the problem will fix itself,” says Kinney. But, she adds, “it’s not just about making sure we pick up our trash and don’t leave out food, it’s about being more responsible pet owners too.” Coyotes may prey on cats and small dogs because they are similar in size to their natural prey, but conflicts can be avoided by exercising caution and not allowing pets outside unsupervised, particularly at night.

In areas where coyotes are known to roam, dogs should be kept on a leash at all times and walking them at night, particularly in less developed areas like hiking trails, should be avoided whenever possible. If small dogs or cats are allowed unsupervised access to your yard, a coyote-proof fence can be installed. Coyotes can easily clear a four-foot fence, but in order to make it over one that is six-feet-tall the coyote has to use the top of the fence to boost itself over; the installation of a spinning roll bar on top of the fence can prevent them from doing this.

In general, when you encounter a coyote that is making itself too visible in areas where it is unwelcome, the best thing to do is make yourself as big and loud as possible. Raising your hands above your head and yelling at the animal, beating pots and pans together, or shaking a tin can filled with nails or marbles is enough to reinforce the coyote’s fear of humans. After a few such chases, most coyotes get the message and move on (Battiata 2006).

**HERE TO STAY**

When all is said and done, whether you love coyotes or hate them, the fact of the matter is they are here to stay. Despite humans’ best efforts to eradicate them, despite the estimated half-million coyotes...
that are still killed every year in the U.S., these resilient canids have proven time and again that they can adapt to nearly anything we throw their way. Those who have studied them closest "believe that conservation science can learn important lessons from long-term studies of a successful, ubiquitous species like the coyote" (Crabtree and Sheldon 1999).

Armed with the vast swath of scientific research that demonstrates their importance in the ecosystem, perhaps it is time we stopped vilifying coyotes and instead learned how to live more peacefully alongside them. At WCSV, we not only work to rehabilitate sick, injured and orphaned coyotes, we are also one of the first places the public turns to with questions and concerns about their coyote neighbors. We have the unique opportunity to be among the coyote’s few advocates, and hope that with your help, we can recruit more supporters and continue to make progress towards true coexistence.

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These three orphaned pups came to WCSV in 2012 when they were about two-months-old. These photos show them curiously exploring their new surroundings after being moved into one of our large outdoor enclosures.
Volunteer Corner: Noam Mendelson

Rehabilitating injured and orphaned wildlife is just as challenging as it is rewarding. The challenge of treating a serious injury is obvious, but when your patient is also a wild animal, the treatment is just one part of a much larger picture. When, for example, we admit an injured red-tailed hawk, we draw on decades of rehabilitation experience to provide just the right housing – down to small details, such as the appropriate type of perch to prevent foot injuries – and to provide just the right diet appropriate to the bird’s condition. We also must be adept at handling to keep him safe and calm, because when treatments are necessary, you can rest assured that a wild hawk is not just going to calmly sit still. Yet, when you finally release an animal back into the wild after months of treatment, you realize that the reward was well worth these challenges.

As a hospital volunteer, I am privileged to help the staff and other volunteers share in those challenges and rewards. Volunteering at a wildlife hospital is unlike any other type of animal care. During the busy spring and summer season, there are typically hundreds of patients in care, consisting of dozens of different species. Volunteers must be proficient in the specific housing, diet, medication, and treatment needs of each one, whether it is an injured and debilitated adult opossum needing medication, wound care, and a special easily digestible diet, or a tiny orphaned nesting songbird that must be hand-fed a diet of insects every 30 minutes.

I often remind new volunteers that while every patient has different needs, they are united in one important respect: their ability to make a stupendous mess! Cleaning enclosures, often several times a day, is a large part of our responsibility to keep the animals healthy, and there is scarcely a moment when the dishwashers and washing machines are not in use.

Interacting with wildlife presents an even greater challenge. To administer medications or treatment, or simply to take routine weights, volunteers must learn to handle all of the different species they might encounter. While each species demands a different method, handling wildlife can best be summarized as the delicate art of causing the least stress to an animal that is often determined to cause you the most stress.

Notwithstanding the overwhelming work and challenges, the hospital runs smoothly, caring for over 5,000 patients every year. We owe that success partly to our experience, as we work together in shifts of supportive teams, with many volunteers contributing for years. Equally important, however, is that unique brand of motivation that comes from having a special sense of mission. I have been on that mission for the past five years. In those years, I have learned not just how to care for injured and orphaned wildlife, but also why it is important. A connection to wildlife changes the way you perceive and appreciate the world. Wildlife rehabilitation volunteers come from all walks of life, but we share this vital, life-changing connection. We know that by coexisting with wildlife, and ensuring that wild animals remain wild, we enrich not just our environment, but also ourselves.

By Noam Mendelson

Noam helps out WCSV veterinarian Chad Alves examine a red-tailed hawk that came in with abnormal neurological symptoms.
I started pursuing my long-term goal of caring for and studying exotic wildlife when I volunteered at the San Francisco Zoo and Peninsula Humane Society 6 years ago. I realized how much I wanted to contribute to education about wildlife and conservation efforts across the world.

I graduated from San Jose State University in May of 2016 with a B.S. in Biological Sciences, with a focus on Conservation and Organismal Biology. With a fundamental knowledge of biology, complemented by field and lab experience, I enjoyed my experience with Zoology, the study of exotic animals, the most. Unable to balance work, college and volunteering, I realized how long it had been since I had worked in an animal husbandry environment and began my internship at WCSV.

At WCSV, I learned how to interact with and treat wildlife in a way that is safe for myself, the patient and other nearby people or animals. My degree and this experience gave me the confidence to apply for positions working with different species around the world.

I recently participated in a 30 day internship in South Africa studying great white sharks. I worked on the White Shark Africa cage diving boat and educated customers on the ecological importance of these apex predators. I also participated in animal husbandry as a volunteer for the Seabird and Penguin Rehabilitation and Education Centre while in Mosselbaai, South Africa. It was interesting to see how the techniques used at SAPREC compared to what I had learned at WCSV. Even half way around the world, if a seagull is not well enough to feed itself, tube feeding procedures are relatively the same.

In addition to educating members of the public, I actively participated in research with White Shark Africa’s resident shark biologist by helping to capture, tag, and re-release sharks into the ocean. I assisted the Stranded Marine Animal Rescue Team by collecting an abandoned baby seal, taking her to the local veterinarian to be stabilized, and returning her to the nursery pool where other adult seals are located in hopes of the baby connecting with her mother. Although this was a marine based experience, a lot of the animal care techniques were similar to those used at the WCSV, like the use of touch barriers when handling the baby seal.

The team at White Shark Africa did a great job of partnering with other outreach and education organizations. I had the opportunity to present with fellow interns at a Keep Fin Alive community event. Keep Fin Alive is a public outreach program that spreads awareness of the catastrophic decline in shark populations due to overfishing and finning. My presentation was on shark by-catch concealed in human food products, how fisheries and companies who participate in finning sell shark meat as “white fish” and other aliases.

My favorite thing about my experience with White Shark Africa was the ability to work with a variety of programs across the world. It was refreshing to witness wildlife and conservation advocacy groups that have the same ultimate goals of helping the environment and the animals we share. This adventure introduced me to the marine side of conservation, I explored parts of a different, beautiful country and met amazing shark activist. As they say, it was fin-tastic! 🦈
There are very few birds that evoke such strong emotions as the humble neighborhood pigeon, who could be found pillaging through some abandoned bread crumbs or an odd piece of an everything bagel lying on the side of the road. Merely the sight of them, bobbing their heads on the pavement, is enough for people to start seething with anger over these “rodents of the sky.” Many claim that they spread filth and diseases as they fly. That claim, however, is not true. There is little evidence to suggest that pigeons pose a serious health risk to humans, and they have even proved particularly resistant to the H5N1 avian flu virus. The worst disease associated with them is parrot fever, but even in New York City, home to more than 100,000 pigeons, averages only one case of the disease per year.

Although a pigeon’s forebrain has only half the neural density of a crow’s forebrain, it can still tell apart the paintings of Van Gogh, Monet, Picasso, and Chagall. In addition, they can learn and recall more than a thousand images, storing them in long-term memory for at least a year. As with city rats, pigeons have an excellent memory for spatial information, which helps them navigate from new locations.

They’re a far cry better than humans at finding their way in the world—without the benefit of technology.

Another interesting fact about pigeons is that they mate for life; widowed birds accept new mates very slowly. They are also model parents: the male and female take turns to incubate eggs, and care for their young in the nest. Both produce ‘pigeon milk’ in their crops. It isn’t real milk – there is no lactose in it – but looks like cottage cheese and is fed to the chicks for their first ten days. That’s why you don’t see baby pigeons: they grow so quickly that by the time they leave the nest, they are almost the size of an adult.

Despite all the flak they receive, pigeons do have their fair share of admirers, and rightly so. From the retired woman who routinely feeds them bread crumbs in the park, to Nikola Tesla and Charles Darwin. Tesla, whose contributions to the design of the modern alternating current electricity supply system is responsible for electric power in every household around the world, kept and cared for several pigeons. Charles Darwin used pigeons as guinea pigs to test his theory of evolution. The theory of natural selection maintains that animals will adapt over time to survive better in their environments, but natural selection occurs over huge expanses of time. Darwin knew it would be very difficult for him to observe natural selection occur in the wild, so he used fancy pigeons from around the world in his backyard in hopes of mimicking natural selection under controlled conditions with the breeding of the domestic pigeons.

Pigeons have walked beside humans throughout history as food, messengers and even as decorated war heroes. Pigeons were extensively used during both world wars. Similarly to how we fret today about our modern systems being susceptible to hacking, in the past they worried that radio communications could be intercepted by the enemy and jeopardize the entire strategy. Enter these flights of fancy who, owing to their domestic nature and their homing abilities, could be easily concealed in a backpack. There are stories of war heroes like Cher Ami, G.I. Joe and other pigeons that saved the lives of countless allied soldiers ranging from a couple hundred to a few thousands because they delivered messages about troop locations before they were bombed by their own artillery.

So the next time you see some pigeons flying through the park or pecking at the ground in the parking lot of the grocery store, try not to get mad and instead remember Cher Ami and G. I. Joe and the valuable contributions pigeons have made to human culture.
Release Highlights

This orphaned *dusky-footed woodrat* came to the Center after being dropped off at the Humane Society of Silicon Valley. Dusky-footed woodrats are native to North America and are known for the large domed nests that they build. They do not typically build their nests in human structures, unlike the more common, nonnative brown and black rats (sometimes called roof rats). After nearly two months in homecare with one of our volunteers, this lucky woodrat was old enough to be released back into the wild.

This *Cooper’s hawk* was brought to WCSV after it had been singed by a methane burner at a landfill. She was pretty thin when admitted, suggesting that she may have been injured for several days before being found and brought to us. She suffered severe feather damage, and we had to wait for the natural molting process to occur in order to ensure that her new feathers would grow in properly. This is a lengthy and costly rehabilitation process, and after over three months of care we were able to release her right in our backyard.

This *bobcat* was brought to WCSV by San Jose Animal Care & Services after it had been hit by a car. He had abrasions to his face, a deep laceration to his right rear leg and indications of internal trauma. Thankfully, he was in good health otherwise and responded well to treatment. After a little less than a month in our care, he was more than ready to be released back to the wild.

This *sharp-shinned hawk* came in after it hit a window. Male members of this species are the smallest hawks in North America. After ensuring that this one had no skeletal damage or head trauma, it was transferred to one of our volunteers who cares for raptors in her home. After just a few weeks, we are happy to report that this hawk was back where it belongs in the wild.

This *common merganser* came in after it was found with string wrapped around its beak. The string had been removed by the Silicon Valley Animal Control Authority officer that brought it to us, but the merganser was pretty thin, likely because she had been unable to eat for several days. Thankfully after less than a week in care, we were able to get her back to a healthy weight so she could be released.
If you see an animal in distress, find helpful information at:

wcsv.org
(408) 929-9453

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