Dear Friends,

One of my all time favorite adages is “life is change...growth is optional.” It’s a saying that has helped me in the toughest of situations, and always rings true.

Until WildCare. Growth is NOT an option at WildCare; it is a necessity. For those of you who have visited WildCare, this is old news. But if you haven’t seen our current facility, you may not be aware that it no longer adequately supports our work. While we have (for many years) done our best to adapt and work around these physical constraints, we must build a facility that will enable us to fulfill our mission to provide emergency medical care to wildlife, deliver superb environmental education experiences to children and adults, and find and communicate the connections among wildlife, human and environmental health. As I write this column, we continue our dedicated search for a new home.

This issue is filled with news about a number of our projects and programs – some of which are new, including WildCare’s raccoon-centered pathology project. We continue our efforts to collect and disseminate data that reveals the widespread poisoning of wildlife in order to stop the use of rodenticides and other poisons that negatively impact nature’s balance.

We are heartened that both Olompali and China Camp State Parks will remain open thanks to the incredible efforts of The Olompali People and the Friends of China Camp. WildCare will continue to provide Terwilliger Field Trips to China Camp for hundreds of students this fall, and we look forward to expanding our partnership with The Olompali State Park to bring our weekend Family Adventures program to this special place that Elizabeth Terwilliger was instrumental in opening to the public. For ways you can help, please visit olompali.org and friendsofchinacamp.org.

Last but not least, I am proud to announce the addition of three new staff members: Mecca Billings Nelson, Director of Development; Eileen Jones, Education Coordinator; and Andy Smith, Maintenance Manager. Aaron Canale joins WildCare’s board of directors as its newest member. We are fortunate to have these talented and committed individuals join the WildCare team!

I hope you all enjoyed some renewing time in nature this summer, and experience the changes that fall will bring all around us. Thanks to your support, WildCare will continue to change and grow.

Sincerely,

Karen J. Wilson
Executive Director

P.S. We have many great events coming up this fall listed on the back of this newsletter. Be sure to check them out online at www.wildcarebayarea.org.
charles mcglashan 2012 terwilliger environmental award

In recognition of the incredible support and kindness he contributed to WildCare during his lifetime, in October WildCare will bestow its 2012 Terwilliger Environmental Award posthumously on the late Supervisor Charles McGlashan.

Called an “environmental visionary” by the Marin Independent Journal, Supervisor McGlashan was a vital advocate for healthy coexistence among humans, wildlife and the environment. His contributions to Marin County are without question synonymous with those of Elizabeth Terwilliger, whose memory is also commemorated by this award.

The 2012 Terwilliger Environmental Award ceremony will take place on October 18 in Ross, hosted by WildCare Board President Susanne Lyons. We are honored that environmentalist Carol Misseldine, the widow of Supervisor McGlashan, will be present to accept this award in his memory.

Please visit www.wildcarebayarea.org/TEA for more details about the event.

news & notes

rodenicides in non-target species

Some animals admitted to WildCare’s Hospital show obvious signs of rodenticide poisoning, such as anemia and bleeding from the eyes and nose. But many more present less obvious symptoms, making testing a necessity to ensure that these animals receive proper treatment immediately. In 2010, WildCare began a partnership with UC Davis’ California Animal Health and Food Safety Laboratory to test wildlife suspected of rodenticide poisoning.

The results of our tests so far have been shocking: 64.1% of all patients tested to date show a positive result for exposure to these deadly poisons. The numbers in 2012 are even more alarming: the rodenticide exposure rate is 84%! WildCare recently used this information to revise our treatment protocols to ensure that all patients considered most vulnerable to poisoning (higher predators and scavengers) are tested for poisoning. Thanks to all of you who have helped implement this important project.

belated thanks

Cindy Testa-McCullagh and Sam McCullagh generously picked up the tab for Dick Bright’s SRO band – the band that made dancing at WildCare’s 2011 Gala so much fun. They should have been acknowledged in the $2500 - $5000 category in our 2011 Annual Report, but were accidentally omitted. Our grateful thanks and apologies to them both.

news and notes continues on page 11

The North Face is a corporation that offers the most technically advanced products on the market to help outdoor enthusiasts of all kinds enjoy the outdoor experience. While the economy has had a severe impact on much of corporate giving, The North Face has maintained its commitment to supporting organizations that work to reconnect youth with nature. Their own online portal to the outdoors, PlanetExplore, is designed to inspire and enable people of all ages to become regularly active outside, and to enjoy the benefits of a connection to nature – just as WildCare does.

This spring, The North Face awarded WildCare a $2,500 grant from The North Face Explore Fund to support our Terwilliger Nature Discovery Field Trips. WildCare was selected for these grant funds from a pool of more than 500 applicants.

WildCare’s Nature Discovery Field Trips introduce Bay Area students to local parks and open spaces to learn about native wildlife. Approximately 50% of participants are from low income backgrounds, and benefit from scholarships made possible by contributions and grants from individuals, foundations and corporations like The North Face. Terwilliger Nature Discovery Field Trips may be the first visits to nature these children have had.

Since the Explore Fund program was initiated in 2010, The North Face has provided $625,000 in grants to encourage an active healthy lifestyle and protection of our natural landscapes by creating a stronger connection of youth to the outdoors.

WildCare is proud to call The North Face our Local Hero!
a project in pathology

A raccoon class and a roundtable discussion held in Grass Valley last March was attended by a number of people from neighboring wildlife rehabilitation centers. Hosted by Jan Crowell of Wildlife Rehabilitation and Release, two researchers from UC Davis who have worked on several of WildCare’s recent raccoon cases attended to update the group on their latest project – one that involved WildCare.

WildCare’s Raccoon Team Leader JoLynn Taylor presented the class she is preparing for the International Wildlife Rehabilitation Council’s (IWRC) online education program. At the end of the class, Patricia Pesavento, DVM, PhD, dip. ACVP, an Associate Professor of Anatomic Pathology at the University of California at Davis Veterinary Medicine, presented an update of the work she has been doing with WildCare on raccoon pathology, and asked for participation from other centers.

wildcare’s raccoons

Raccoons are admitted to WildCare for a variety of reasons. Basic injuries like broken bones and bacterial infections usually respond well to treatment, but when a viral infection such as distemper or parvovirus is suspected, the prognosis is very poor, as there is no effective treatment for these diseases. In general, there is little research available about wildlife diseases, because most of what scientists have studied and published is based on dogs, cats or animals of agricultural interest. Veterinarians who treat wildlife must base their treatments on those used in similar domestic species. Raccoons are a modern and generalist species that shares characteristics with the dog, cat, weasel and bear families.

In the last few years, WildCare’s wildlife hospital has admitted a number of raccoons whose symptoms seemed to come from distemper, a disease they share with canines. Those symptoms include nervous system disorders, from apparent tameness at one end of the spectrum, to seizures at the other end. But Medical Staff experience and intuition said that, although many of the symptoms matched up, not all of them led to a clear diagnosis of the distemper virus. It was possible the distemper virus had mutated, or that the animals were dying of something else. To see if we could learn more about how to treat these cases, we began routine testing of these raccoons.

Two years ago, after receiving a generous funding grant for the purpose from Microsoft on behalf of clinic volunteer Stephen Shaw’s many hours of volunteer work, WildCare began to send these suspected distemper cases to the California Animal Health and Food Safety (CAHFS) laboratory at UC Davis. As the lab reports came in, the findings surprised us as well as the pathologists. Many of the cases that seemed so similar to distemper turned out to be a form of brain cancer localized in the olfactory lobes—one that had never before been documented. Suddenly, this was no longer a routine process for the people at the lab—Drs. Leslie Woods and Federico Giannitti from the CAHFS lab wanted to learn more. Dr. Deana Clifford, a wildlife veterinarian from the Wildlife Investigations Laboratory of the California Department of Fish and Game (CDF&G) became involved with advice and some financial support; as a professor of pathology, Dr. Patricia Pesavento engaged her graduate students in a research project to learn more. She described the project at the roundtable in March.

the roundtable

After the raccoon rehabilitation talk, Dr. Pesavento described the process she and her team followed, in which they discovered a polyomavirus that is associated with the brain cancer identified by Drs. Woods and Giannitti at CAHFS.
Reviewing the biology of the olfactory neural pathways, she explained that scent receptors in the nasal/sinus area are unique in that they are directly linked to the olfactory area of the brain. Neurons are “excitable,” i.e., capable of responding to changes in the environment around them. Because the raccoons’ tumors were consistently located in the olfactory brain center, the immediate thought was, “Were the raccoons smelling something that might be causing this?”

viruses and cancer

Dr. Pesavento noted the American Cancer Society statistic that an infectious disease is associated with 15-20% of cancers. Examples include Epstein-Barr Virus, JC virus, cytomegalovirus, Merkel cell polyomavirus and the papillomavirus which is associated with cervical cancer in women. Virus-associated cancers are also linked to immunosuppression such as those in Kaposi sarcoma and AIDS. But she reminded us that the presence of a virus doesn’t mean there aren’t also environmental factors. A high cancer incidence is reported in wildlife populations in environments that are heavily contaminated with chemicals from human sources.

Cancers are more often seen in older animals, but viruses are very commonly found in young ones. That’s true of humans too—think of children passing cold and flu viruses to each other. She pointed out that while the raccoon polyomavirus (RaPyV) is genetically similar to polyomaviruses that infect other species, each virus is unique to its species.

With her graduate students, Dr. Pesavento is initiating a project to try to get a better picture of what the findings might mean.

the project

WildCare receives a large amount of information from CAHFS, including microbiological, parasitic, virological and serologic data, and detailed reports of samples and diagnoses. Our records are retained and searchable, so that information can be compiled from our cases, both for ourselves and through CAHFS. This data is a great start, but it is too narrow for scientific purposes.

First of all, of course, is the fact that most (not all) of the raccoons diagnosed with this specific malignant brain tumor lived in Marin County. But that may just be a result of the fact that we are the only center currently engaged in this type of diagnostic testing. The first step is to obtain more samples from other areas. As suggested above, young animals are important in viral shedding. Dr. Pesavento is requesting samples from healthy raccoons at about the age of eight weeks or older from WildCare and other centers to find the answers to the following questions:

• How common are tumors in raccoons, and are they consistently associated with this virus?
• Who is shedding the virus and where is it being shed?
• Does polyomavirus cause tumors?
• What is the route of infection?
• Are raccoons immunosuppressed?
• Is raccoon behavior important to the data?
• Is there something in the environment that contributes to tumor formation?

one health

To date, eleven confirmed cases of this malignant brain tumor, specific to raccoons in Marin, have been documented. These interesting cases represent another example of a one-health issue. As such, it is one that the CDF&S is very interested in, and to the extent its budget constraints allow, it has contributed financial support to keep the project moving forward. The “One Health” principle is central to Dr. Deana Clifford’s work at the CDF&S Wildlife Investigations Laboratory. She commended WildCare’s efforts, noting that, “Without the generous support of WildCare’s donors, these cancers may have gone undetected.”

While a polyomavirus from a raccoon may not cause a tumor in another species, what we can learn from wildlife will have implications for other species, including ourselves.

Maybe these cases will confirm what we already know: it isn’t healthy to eat garbage.

A docile wild raccoon (far left) is not normal. Raccoons are carnivores (center) related to dogs, cats, weasels and bears, and share some diseases. Veterinary medical treatments for wild animals rely upon treatments known to be effective on domestic animals. Tests for distemper instead revealed brain tumors, shown in cross section, left, in the olfactory centers of the raccoons’ brains.

Dr. Pesavento has written a paper, “A Novel Polyomavirus Associated with Brain Tumors in Free-Ranging Raccoons,” De La Cruz et al, 2012. It is been submitted for publication.
when to do it yourself!

by Kelle Kacmarcik

With so many quick fixes to be found on the internet, it is no surprise when bad advice results in an unfortunate outcome for wild animals. When animals seek shelter under a home, in an attic or under a shed, it is almost always a mother looking for a quiet, safe place to raise her family – usually in spring or summer – just when we want to use the warm weather to make repairs.

Wild animals seek three things to survive: food, water and shelter. They may find food from the bag of dog kibble in your neighbor’s garage, shelter under your home and water from the Koi pond of your neighbor down the street. If you are having wildlife conflicts, do what you can to identify and minimize or remove the attractants. This you CAN do yourself!

Timing is everything

Fall and winter are the perfect time to tackle repairs and to prevent unwelcome guests next spring. Most wild animals only stay in one place while they are raising a family. As soon as the young can move, they go out to forage each night over a territorial range and sleep in various “hides” when daylight comes.

Raccoon conflicts in Northern California occur from April through June when adult females have their kits. Raccoon damage often appears as bent exterior vent covers, pulled interior insulation and accumulated urine and feces at their latrine site.

Skunk conflicts are similar to those of raccoons except skunks don’t tend to go as deep into a home. If there is erosion, loose soil or gravel around the foundation of the structure, skunks can easily dig underneath.

Squirrels can have multiple litters each year, so you may encounter baby animals any time from spring through fall. These little rodents like to chew, and can turn small holes in attics into larger ones – perfect for raccoons to move into next spring!

Humane laws

While you can purchase live traps in many home improvement stores, what they don’t tell you is that it is illegal in California to relocate wild animals. These are good laws for wild animals. Relocation is NOT a humane solution. Studies have shown that 50-75% of relocated animals die from territorial disputes with resident wildlife when they try to find food and water in unfamiliar territory.

In addition to the high mortality rate, relocation causes nuisance problems for other people. It also spreads disease. Because the California Department of Fish and Game is responsible for managing wildlife diseases, it also impacts our taxes.

The only legal thing you can do with that trap is to immediately release the animal within 100 yards of where you trapped it! Trapping itself is a specialized skill that involves training and licensing, and frequent monitoring of the trap. Just what ARE you going to do with that skunk now that you’ve caught it? If you hire a professional service that tells you they will relocate an animal, they are either lying to you or breaking the law.

There are many humane solutions to wildlife conflicts. Take action before February when skunks start to mate!

Do it yourself!

Here are some ideas that will minimize damage and prevent wildlife from gaining access to your home.

1. Inspect the exterior of structures for any sign of animal activity: chewing, digging, holes or gaps, loose and missing vent covers. Don’t forget the dryer, sub-floor and attic vents.

2. Install a chimney cap.

3. Trim trees a minimum of four feet away from structures.

4. Replace damaged wood and siding.

5. Install metal flashing on vertical structures that could be climbed.

6. Attach wire mesh to the bottom of your deck and dig a trench around the deck, bend the mesh into an ‘L’ shape and lay the mesh down into the trench, then backfill with soil.

7. To keep wildlife out of your fenced yard, consider a Coyote Roller™ fence topper.

8. Pick up fallen fruit from your trees and sweep up spilled bird seed daily.

9. Secure the lids of your trash cans, and wait until the morning of pick-up to put them out.

10. Store domestic animal food in the house or in metal containers with secure lids. Bring in pet food and water bowls at night.

If you...

• compost, consider converting from an open-air to a closed system.

• have a problem with birds, consider bird spikes, streamers and other roost inhibitors.

• have window wells, install covers or ramps to allow animals who have fallen in to escape.

• have a pool, install a ramp to allow animals to haul themselves out.

• have a crawl space, make sure the door closes securely, and is locked.

• have garden damage, fence it and use wire mesh as for decks. Do not use netting: hawks, snakes and countless other animals are caught and tangled in netting. Use bulb cages to protect from gophers.

For those of you who might not be so handy or just don’t want to do it yourself, WildCare Solutions can help. Call us at 415-456-7283.
adventures with wildcare
by Juan-Carlos Solis

Remember the first time you were captivated with nature? As a kid growing up in the city of Puebla, Mexico – over 7,200 feet above sea level – for me, it was seeing and experiencing the ocean for the first time in third grade. I remember not only how great it was to swim in it and play with sand, but also exploring tide pools and holding and getting pinched by crabs. It hurt a little, but was so much fun! Now, after graduating with a degree in marine biology and working as a naturalist and program administrator for nearly two decades I still enjoy looking at crabs (minus the pinching) and have discovered that one of the most rewarding aspects of my career is to see families enjoying nature.

curiosity and science

The best thing about walking with children on the trail is their level of fascination with the simple things that we often take for granted as adults. As a naturalist, seeing their level of excitement in a tiny mushroom, “bird-poop” lichen, a lady bug or a roly-poly (woodlouse) makes every step on our local trails a wonderful fresh experience for me. Starting with a child's simple curiosity and interest in a particular plant or creature paves the way for some amazing stories about the things nature has revealed to science, while at the same time instilling a healthy wonder about all the things that we don't know.

wild things large and small

Last month during a Terwilliger Field Trip at China Camp with a 2nd grade class from East Oakland Elementary I was reminded about how great is a child's sense of wonder and discovery As we started the hike, I looked for a group of mule deer bachelors with brand new antlers that I had seen earlier in the morning. I turned around to find out that my group was more interested in a few harvester ants walking across the fire road. One of the boys was about to pick up what appeared to be a Harvester Ant soldier. “Don’t pick it up,” I warned. “You will scare her and she will undoubtedly bite you.”

We spent the next ten minutes observing and learning about ants. One of the most amazing things we know is that they can track the scent of the colony as they walk around, and that’s how they find their way back to their nest every day. A colony will collect several thousand seeds every year, and we still don’t know how this will affect the types of plants growing near their nests. They are amazing harvesters!! ¡Cosechadoras! in Spanish. The girls especially enjoy hearing that all ant soldiers are girls, and that they are fearless when it comes to defending the colony and their queen.

terwilliger field trips

Experiences or “wildlife discoveries” like this are the backbone of WildCare’s Terwilliger Nature Education Field Trip programs that take place at China Camp State Park, Muir Woods National Monument, Ring Mountain Preserve in Marin County, and Spring Lake Regional Park In Sonoma.

Each park site provides different opportunities for discovery. For example, while encounters with ants and deer are common at China Camp, the chance to meet Banana Slugs and touch 150-year-old (or more!) Redwood Trees is certainly the signature of a Muir Woods school program. Through these programs children learn, and more importantly, become engaged with nature. My most rewarding “office paperwork” activity is to read children’s thank-you letters following a program. Their drawings are not only amazingly creative and fun to look at, but also give me an insight into what created a sense of wonder in them.

This sense of wonder is the spark that will ignite a connection with our local wildlife and ecosystems. Collectively, what we have to do as educators, naturalists and administrators is to ensure that that connection with nature and the outdoors is alive through their formative years in school.
River Otter (#0681) was rescued in Larkspur on May 27. Residents had observed an otter family playing in Corte Madera Creek but piercing distress calls alerted Jane Sherman. Using their kayak Jane pulled the drowning pup, too young to swim, from the water and called the Marin Humane Society. The baby arrived at WildCare hypothermic and exhausted. Two siblings were later found drowned; their mother was never found.

Supportive care, including heat, oxygen, fluids, antibiotics and formula fed from a bottle revived her, and by Monday she was alert and very feisty. River Otters need specialized facilities and other otters to thrive, and Lake Tahoe Wildlife Care responded to our email for help.

Patient #0681 was transferred there on May 30, but following California Fish and Game regulations, she will be released in Marin County. You can view a video of her at WildCare at www.wildcarebayarea.org.

Gopher Snake (#0853) was one of three tangled in garden netting and brought in from Novato by the Marin Humane Society on June 14. Two were dead and had begun to decompose, but miraculously, #0853 was still alive.

The netting was painstakingly removed, and it was clear they had all sought the mice nesting in the netting.

Patient #0853’s scales were badly damaged, and he had minor lacerations all over his body. The snake was put in a pool of warm water to hydrate, and he began to gulp down the water.

Snakes are not the only animals that become tangled in garden netting. This non-biodegradable plastic has snared birds, raccoons, opossums, skunks, lizards and other animals.

He went to foster care with Nat Smith on June 18 where he will stay until late summer, after his skin has healed and he sheds the damaged layer.

Long-tailed Weasel (#0712) was found sitting on Kathleen Sartori’s porch in Tomales on May 30. He was in good condition, with beautiful teeth that indicate he is relatively young. That he was “approachable” could indicate that he was in the early stages of distemper, a viral disease of carnivores that causes neural damage. Tameness was another possibility. Keeping any wild animal in California is not legal, but weasels are small relatives of ferrets, popular as pets in other states. Baby animals seem like good pets until sexual maturity occurs. Then the no-longer-sweet-babies are often abandoned.

Patient #0712 had a great appetite and showed no sign of distemper. He was transferred to quiet outdoor off-site caging where he will be released slowly, with supplemental food.

Western Gray Squirrel (#0234) was brought to WildCare from Novato by Sonia Fuetsch on March 29. She had been found under a palm tree with a severe laceration deep into the muscles across her back, from hip to hip. Unwilling to use her rear legs, her tail was completely flaccid. This is a concern, because squirrels use their tails for balance and temperature regulation in both winter and summer.

Radiographs showed no fractures, but a subtle spinal injury might not show up on our equipment, and we called Dr. Lynne Lankes of the Central Marin Cat and Exotic Hospital. Dr. Lankes prescribed a wound treatment for the next week as the baby regained strength, then performed surgery to close the wound on April 6. Over the next weeks several more visits and treatments were needed, amounting to more than $1,000 in veterinary services which Central Marin Cat and Exotic Clinic generously donated to WildCare.

Miraculously, this little squirrel made a complete recovery with full function of her tail, and on June 2 was released with a nest box in a tree.
through its wildlife hospital, WildCare Solutions and Living with Wildlife Hotline services, Hungry Owl Project and Nature Education programs – WildCare’s complete range of programs, really – WildCare is in a knowledgeable position to act as a voice for wildlife to people – like you – who can help decide how we treat the wild animals that are affected by our actions and activities.

SB 1480 – wildlife trapping

Senate Bill 1480 helps protect consumers when hiring a licensed wildlife trapper, and prohibits the most inhumane wildlife trapping practices.

Twenty-five supporters took a bus to Sacramento on Tuesday, April 10 to show our support for SB 1480 at the California State Senate Natural Resources and Water Committee hearing. Despite some opposition, the bill passed with the needed five votes, and will move on to the Assembly next.

Specifically, SB 1480:

• Requires the California Department of Fish and Game (CDF&G) to provide a list of licensed wildlife trappers on their website;
• Requires wildlife trappers to provide a written contract with a summary of state trapping laws notifying customers that “all fur-bearing and non-game mammals that are legal to trap must be immediately killed or released”;
• Requires trappers to take specified steps to prevent orphaning young;
• Prohibits trappers from using the most inhumane methods of killing wildlife;
• Restricts the use of kill-type traps to reduce harm and death to non-targeted animals including family pets;
• Ensures trapping license fees collected by the CDF&G are appropriately used for enforcement of this program.

SB 1221 – wildlife hounding

Senate Bill 1221 would prohibit bear and bobcat hounding in California. It was introduced by Senator Ted Lieu and coauthored by Senator Steinberg. Fourteen states already prohibit hounding.

Trophy hunters use packs of radio-collared dogs to track and pursue bears and bobcats; they pursue the terrified animal until the animal tires and climbs to the expected safety of a tree. The hunter follows the radio signal to find the treed animal, then shoots it.

Using hounds to track and tree bears and bobcats is inhumane and unsporting – a violation of hunting’s “fair chase” principle. Abandonment of dogs used for hunting is also a problem and strains the resources of animal shelters.

On July 2, 2012 this bill passed from the Senate Floor and was referred to the Appropriations Committee. With no public financial implications, this bill will hopefully be signed into law.

SB 1221 has the support of thousands of Californians who advocate for wildlife, including the ASPCA, the Bear League, the Humane Society of the United States, The Sierra Club California, the State Humane Association of California, and WildCare.

a voice for wildlife

Advocacy on behalf of issues that affect our work, health or well-being is essentially an educational process. Wild animals have neither voice nor influence, and advocacy allows us to be that voice for those who cannot speak for themselves.

While our nonprofit status does not allow us to endorse any political candidate, we would like to remember inspirational political leaders such as the late Charles McGlashan and ask that you support those candidates who make wildlife issues a part of their concern for the health and well-being of the environment we share.

Learn more about these Senate Bills on our website: www.wildcarebayarea.org/takeaction.
wildlife in the news

WildCare was knee-deep in juvenile California Brown Pelicans in July. The one pictured above was rescued from traffic on the Golden Gate Bridge by WildCare volunteers Anne Barker and Stephen Shaw as they returned to Marin after work in Silicon Valley. Many of the pelicans that were in trouble were juveniles who had just fledged. The high number indicates that breeding populations continue to rebound since the species was decimated in the 1970s by DDT poisoning. Shortage of food and inadequate juvenile hunting skills have caused widespread starvation.

WildCare is a triage center for Bay Area waterbirds. They are stabilized here and transferred to International Bird Rescue (IBR) in Fairfield where they have the space and facilities to rehabilitate them.

Kelle and Nat: shining stars

The Friend of Farm Animals Award was presented to WildCare Solutions Manager Kelle Kacmarcik at Farm Sanctuary in Orland, CA on May 19, 2012 for her “dedication to creating a more compassionate world for farm animals.” Kelle coordinated rescue efforts and triage medical care for the 4,650 hens rescued from an egg-laying operation in Turlock where 50,000 hens had been abandoned in their battery cages without food or water for two weeks. It was the largest farmed animal rescue in California history.

In June WildCare Wildlife Technician Nat Smith passed the final exams to complete certification as a Registered Veterinary Technician from Foothill College and passed the board certification exams in July. Nat is also an International Wildlife Rehabilitation Council (IWRC) Certified Wildlife Rehabilitator. Nat continues to volunteer with both Lindsay Wildlife Museum as their reptile and woodrat specialist, and with WildCare as a reptile and skunk specialist. We are proud to welcome Nat to WildCare’s staff as our first certified RVT. Congratulations, Nat Smith!

environmental forum of marin master class

The Master Class is an ideal course for individuals seeking to deepen their knowledge of wild animals and birds. The need for volunteers continues... and evolves. It seems we have fewer patients so far this year, and it begs speculation, “Maybe one world, one medicine” makes sense ... we all inhabit one very small planet. It makes sense that what affects birds and animals affects other living things, including us. The more we know, the better off we all are.”

Cassandra Miller, Sandy to those of us who work with her, is a recovering senior wealth advisor who used to work at a very large bank. She took a beautiful, injured towhee to WildCare one day in 2005, and has been involved with the organization since then, first as a generous donor, and then in 2010 as a volunteer. She is also on the advisory board for Fellow Mortals Wildlife Hospital, and affiliated with the Merganser Fund, another nonprofit wildlife sanctuary, both of which are in Wisconsin.

“I love seeing these wonderful animals and birds at WildCare up close and realizing what they are up against. Learning how to care for them when they are injured, sick, malnourished or orphaned can evidently take a lifetime. Witness the questions JoLynn (Taylor) is still trying to answer after caring for baby raccoons for years!”

Sandy volunteers at WildCare twice a week (one shift in the songbird room and one in the clinic), because the need for volunteers continues... and evolves. It seems we have fewer patients so far this year, and it begs speculation, “Maybe one world, one medicine’ makes sense ... we all inhabit one very small planet. It makes sense that what affects birds and animals affects other living things, including us. The more we know, the better off we all are.”
environmental issues and those looking to enhance their professional credentials regarding sustainability. Master Class 2012–2013 is a comprehensive 20–week series of classes and field trips focused on the natural world, human impact on the environment, advocacy training, and completion of a stewardship project.

Master Class 2012–2013 will begin on August 28, 2012.

For more information visit www.marinefm.org or contact Heather Furmidge (h_furmidge@yahoo.com), 415-626-1967.

walk on the wild side

The Marin Volunteer League is hosting a Walk on the Wild Side event on September 11 at 11 am under the redwoods at Deer Park Villa in Fairfax. Proceeds will benefit WildCare, The Marine Mammal Center and Marin Friends of Ferals. For information visit www.marinvolunteerleague.org.

nature guide orientation

Nature Guides help WildCare connect children with nature. Our Nature Guides learn interpretive techniques from professional naturalists and share the beauty and wonder of nature with schoolchildren by leading fun hikes full of exploration and adventure.

This extensive training for Nature Guides is provided over eleven half-day training sessions – indoors and outdoors. Throughout the training, WildCare’s naturalists and guest speakers will share expertise on plants and animals in their different habitats, and early Native Americans’ relationship to the land. There is a nominal fee to cover training and materials. Once training is completed, WildCare asks Nature Guides to commit to a minimum of three 3-hour hikes a month, scheduled in advance. All hikes take place on weekdays during the school year. WildCare’s Nature Guide orientation is August 4 from 11am-12:30pm at WildCare in San Rafael.

Living with Wildlife Photography Contest

Enter your best California wildlife photo to win our $500 Best in Show Prize

Entry deadline September 14, 2012
Visit wildcarebayarea.org/photocontest or call 415-453-1000 x 24 for rules and entry forms.
Canine detective story
by Barbara Pritchard

A caller to our phone desk had been seeing a family of animals in her backyard and worried that they might be coyotes. Most of the time it is pretty easy to identify what species is in question if you know the basic natural history. The caller asked, “Are coyotes dangerous? What about my pets? The slightly bigger one growled at my cat when she went over to take a look.”

I think, “if the cat is nosing around, it certainly isn’t coyotes. I wonder if this could be a family of foxes?” And the questions began...

**question** What do they look like? Bigger than a kitten? What color?

**answer** They are sandy gray, maybe light brown, about the size of large cat, but they look more like puppies than kittens.

**question** Do they look healthy? Are they active? How does their fur look? Do they look well fed?

**answer** The babies are not begging at the door for food, their fur is bushy and their bellies are rounded. They all ran under the back deck when I went out yesterday. Today they are chasing each other all around the patio chairs.

*(Healthy and happy! This is good!)*

**question** When and where do you see them? Are they coming out during the day, all day, or afternoon and evening?

**answer** Looking back, we think something may have been going on under the deck for at least a month now, but we have only noticed the little guys out and playing for the last 4 or 5 days. The small ones are sometimes out during the early part of the day, but we can hear them out at night as well. They were in the neighbor's yard a couple of times, but mostly they are in our backyard, by the deck. From my kitchen window, I have seen them sitting on the lounge chairs.

*(Under the deck? I can see a couple of coyote pups scrambling under a deck, but not the family. Adult coyotes would be too big and would certainly not be playing on the furniture! I am pretty sure these are foxes!)*

**question** Do you hear anything?

**answer** We are not hearing much this week. Last week we thought the bigger one was injured, it was dark out and it was making the most incredible noises. It seems okay now.

*(“Coyotes hunting as a pack can make a fearsome yodeling/howling/snarling noises, but then, so can young raccoons. When a fox barks however, it sounds more like someone is pulling one of her toes.”)*

**question** What else have you noticed?

**answer** Tiny little animal parts. There was part of a dead lizard and some rodent tails yesterday. Today there was a gopher head. Some of the cat toys are also disappearing, but we have seen the little ones playing with the cat toys. Their favorite is a pink striped fabric mouse with a very long tail. I think that one is probably under the deck now with the rest of the missing toys.

*(This lucky, lucky lady has a family of foxes under the deck!)*

We talked about the cats, and while the foxes are not a big threat, keeping the cats inside for a couple of weeks would be the safest for all concerned. I warned her that fox kits are messy and she may need to clean up in the mornings, and I took her mailing information so I can send her some printed information we have on living with foxes. She called me back to report that all is well.
amazing orb weavers

by Marge Gibbs

Autumn is prime time to look for orb weaving spiders and their webs. The spiders have been growing all summer, and their huge orb webs seem to glow in the lower autumn light. The spiders, too, become more conspicuous as the female’s abdomen becomes enlarged with eggs. Like Charlotte in the much-loved children’s book, her last act will be to wrap those eggs in warm layers of silk and then attach the egg case in a protective place.

With over 3,000 species and over 160 genera, orb-weaving spiders (family Araneidae) are the most common group of builders of wheel-shaped orb webs, often found in gardens, fields and forests. Although members of this family have eight eyes, their eyesight is rather poor, so they rely on vibrations to alert them to a pending meal. Like all spiders, orb weavers feed primarily on insects and other small organisms.

begin with a balloon trip

The building of an orb web is an engineering feat begun when the spider floats a line on the wind, called “ballooning,” to another surface. The spider secures the line and then drops another line from the center, making a “Y”. The rest of the scaffolding follows with many spirals of non-sticky silk being constructed like the spokes of a wheel before a final spiral of sticky capture silk is laid. The prey that blunders into the sticky lines is stunned by a quick bite and then wrapped in silk for later consumption.

Not only do they build this engineering marvel, but you could also say orb weavers are the ultimate recyclers! Webs lose their stickiness after about a day due to accumulation of dust and exposure to the air. The spider eats its own web before making a new one, so the protein used for the silk threads is recycled. Some orb weavers eat and rebuild their webs every night.

A feature of some orb-weavers’ webs is the stabilimentum, a crisscross band of silk through the center of the web. It is found in the web of the yellow and black garden spider and the silver banded garden spider. There are many theories as to why it is there: A marker to warn birds away from the web? Camouflage for the spider when it sits in the center of the web? Or perhaps the stabilimentum may attract insects by reflecting UV rays.

Next time you’re out admiring an orb web, notice that it is never built quite vertically, but is at a slight angle. This is because if a spider feels threatened, it will quickly drop into the vegetation on a silk “drop” line. If the web were vertical the spider might get caught up in its own sticky web!

different silk for different uses

Some spider silk is incredibly tough; five times stronger than steel, it is almost as strong as Kevlar, the toughest industrial polymer. It is finer than a human hair and is able to keep its strength below minus 40°C.

Orb weavers have four to six spinnerets from which they can produce a number of different strands of silk. There is wrapping silk, egg sac silk, non-sticky dragline silk, sticky silk and attaching silk. These different types of silk are used for a variety of purposes: web construction, to capture and immobilize prey, pheromone trails and reproduction, dispersal, drop lines for protection, guide lines, and even a source of food (they re-ingest it!).

Keep your eyes open this fall for the amazing orb weaving spider homes, the large spiders and their egg cases. In the spring their little spiderlings will be “ballooning” in the breeze looking for the perfect place to build their home.

And the cycle of life continues.
I just for fun! I

a-"maze"ing orb web

Orb weaver spiders catch tasty flies in their sticky webs. But during the day, dust and wind can make the web less sticky and damage the web, so the spider has to repair her web each night.

Spider silk is amazingly strong, and spiders never waste the silk, but have learned to recycle the material, just like we are starting to learn to recycle paper, plastic and other materials from things we use. They reuse the silk they used yesterday to make the new web in the morning.

This web needs repair. What time of day do you think it is? Do you think the spider will catch the fly for supper, or do you think the fly will have a better chance of escaping in this damaged web? Can you help the spider repair the web by drawing in the missing silk?
I schedule of events I  

**Museum and Courtyard Programs**

**wildlife ambassadors** FREE
Ambassadors in WildCare’s Courtyard
- Pool bird feeding
daily at 12:30 & 4:30pm
- Meet the Trainer
daily at 11am and 2pm
- Ambassador Enrichment
daily at 1pm

**Terwilliger Nature Education Programs**

**Family Adventure Walks**
- September 29, 10am - noon
  - Family Beach Day at Rodeo Lagoon
- October 27, 10am - noon
  - Halloween at Deer Park
- November 10, 10am - noon
  - Birding at Stafford Lake

**Events**

**Terwilliger Environmental Award**
Presentation and Reception
October 18, 4-7pm

**Photo Contest Deadline**
September 14, 5pm

**Dining for Wildlife**
September 18 and September 26
Reserve by September 12

**Volunteer Appreciation Party**
September 15, 11am-3pm

**An Evening with Owls**
November 2, 6:30-9:30pm
Mill Valley Community Center

**Wildlife Conferences**

**OWCN Annual Rehabilitation Conference – OillaPalooza**
Oiled Wildlife Care Network Members
Hilton Santa Cruz/Scots Valley, and Marine Wildlife Veterinary Care and Research Center, Santa Cruz, CA
October 27-28, 2012
www.owcn.org

**The Wildlife Society Conference**
Oregon Convention Center, Portland, OR
October 13-18, 2012
301-897-9770 www.wildlifesociety.org

**IWRC Symposium**
Paper Valley Hotel, Appleton, WI
November 14-17, 2012
408-271-2685 www.theiwrc.org

**California Council for Wildlife Rehabilitators Symposium**
Tenaya Lodge, Yosemite, CA
November 16-18, 2011
415-541-5090 www.ccwr.org

*Pre-registration is required for all programs and events EXCEPT those noted with an asterisk; call 415-453-1000.