## Crow Feather Imping

By Alyssa Schlange, Volunteer and Outreach Manager
Almerican Crow number 1476, came to us on May 13th of this year as an orphan with terrible feather quality, suggesting malnutrition due to abandonment. After three weeks of consistent care and steady weight gain the crow was still not able to fly. Dr. Duane Tom, Director of Animal Care, ascertained that the crow would need the full set of wing primary feathers to be replaced, or imped, and possibly full tail primary feathers as well.

Imping is when we take feathers from a deceased patient with good feather quality and insert them into the feather shafts of the living patient under anesthesia. We remove the patient's bad or broken feathers and glue the new feathers in, which improves the bird's flight quality. It allows the birds to maintain muscle tone and flight ability while recovering, better preparing them for release when other injuries are healed. Imping is a life-saving but complex procedure, as the donor feather must match the recipient in age, size, and sex. The feathers are carefully inserted at particular angles so that it mimics the degrees of the original feathers that allow the birds to soar.

On June 5th Dr. Tom and his team of preceptors (fourth year veterinary students) imped the crow's wings in a procedure that took over 2 hours. While 1476's flight did improve, he was unable to fly directly to the highest perch so it was decided that we also needed to imp the tail feathers so that he could get more lift in his flight. On July 11th, we imped the remaining tail feathers.

After a few days in the enclosure he was authorized to be released. On July 14th, after being in care for 61 days, he re-entered the wild with 14 other juvenile orphaned crows.


The donor feather is inserted in the shaft of the existing feather


His tail after having broken feathers replaced


Crow 1476 after release
Photos by Alyssa Schlange

## Exercising Raptors Back to Health

## By Jennifer Guess, Senior Wildlife Technician



Here at California Wildlife Center (CWC) we see a lot of raptors with severe injuries that require many weeks even months of rehabilitation. The raptor family includes all types of hawks and owls. As the birds heal inside the ICU they do not get the daily exercise they would receive in the wild. Due to most raptors lengthy up flight muscles before they can be released back into the wild.

When a raptor reaches the point in his recovery plan where he is stable and in good body condition he can be moved into one of our large outside aviaries. Raptors fly many miles every day and it is difficult to provid enough space in an enclosure where a bird can get adequate exercise on his own. One method of exercising raptors is to encourage them to fly from one end of the enclosure to the other. The drawbacks of this method is that it can be stressful on newer patients sharing the large flight aviary, and on patients in nearby flight
aviaries. Plus, most birds learn very quickly how to navigate the enclosure with as little exertion as possible. aviaries. Plus, most birds learn very quickly how to navigate the enclosure with as little exertion as possible.
At CWC we use a method of exercising called creancing. During creancing the raptor is caught up from the outside aviary. A hood is placed over the head and eyes to reduce the stress level of the bird. Leather anklets are attached to the bird's legs, above the feet. The bird is then transported to a nearby open field. Leather strips, called jesses, are fed through the anklets and hang down below the bird's feet. A light weight line with a across the field and when he out and lands on the ground.

It is important to do a lot of prep work before creancing a raptor. The weight of the tube must be adjusted depending on the weight of the patient. If the tube is too heavy, it could cause injury to the bird when he reaches the end of the line. If the tube is too light, the bird might be able to fly further than expected and into an obstacle like a nearby tree. The line must also be carefully measured before each creancing session. It should be long enough so the patient can gain lift and propel forward before feeling the weight of the tube but it should not be so long that the patient can reach obstacles.

During the flight, important information is being collected. The majority of our creancing is performed by Malibu resident and longtime CWC volunteer, Diana Mullen. She takes careful note of how far each patient flies, how much lift they are able to obtain, whether the wings are symmetrical during flight, and how quickly the bird tires out. She works very closely with our veterinarian, Dr. Duane Tom, and knows the history of each patient before taking them out for creancing. It is important to not push the patient too hard. Sometimes a single flight is enough for a creancing session. Depending on the patent, a bidigh have hree or four ights a session. Each piece of information is careruly recorded in seeing the raptors soar into the air serves as an excellent reminder of why we do the hard work of rehabilitation for these beautiful animals.

## Marine Mammal Season Wrap Up

By Michael Remski, Marine Program Manager

Each winter, as we prepare for the upcoming marine mammal stranding season, it is impossible to accurately predict what the for the best, and try not to act surprised when things get crazy, 2017 brought us anomalies on all fronts.

We opened as planned on January 1st and took in our first patient of the year. The little sea lion turned out to be one of only 14 that would strand this year (our slowest sea lion pup season to date).
Then, just as we were ready to enjoy a relatively light year, the elephant seals starte

But unlike years past, they kept coming. And coming. And coming. 47 of them to date Fortunately, the rather large group of E-Seals turned out to be a little more robust than in years past, and we were able to save a record breaking $92 \%$ of them.
While still catching our breath from the rather busy elephant seal rush, we then got hit with busy elephant seal rush, we then got hit with years. Dozens of adult California sea lions years. Dozens of adult California sea lions were coming ashore exhibiting the classic
behaviors of head weaving, seizing and behaviors of head weaving, seizing and
hauling out amongst the crowds on public beaches. With local rehab centers at capacity and a full load of elephant seal patients still back at CWC, the recent algal bloom took it toll on many California sea lions in the area

Despite long hours and exhausting situations, the CWC staff and volunteers were able to rise to the occasion and do what we do best, save lives. Congratulations and many thanks to all of you who have made this season a tremendous success.


## Being an Intern at CWC

By Luis Vasquez, Seasonal Animal Care Intern
If you are blessed with the time and opportunity and have a little voice inside questioning whether you should intern at CWC or not, DO IT. It is incredible how much you will take away. I interned at CWC for 10 weeks this summer and it was wonderful learning about how to care for injured or orphaned animals, the differences between species, and the overall importance of wildlife rehabilitation.
When animals come into CWC, wildlife technicians, with the help of interns, assess the patient's condition and create a treatment plan. rom there, patients are monitored every day. This incling behaviora enrichment (to simulate behaviors they would have in the wild).
As an intern, I had the responsibility of helping determine when the animals showed significant improvements to be moved out of isolated care to larger group enclosures, and finally to be released. For example, one American Crow came in as an orphan during my first week. with his unfortunate digestive issues, parasites, and cough He went from isolated care to a fledge pen, to our fledgling crow aviary. Finally, after 9 weeks, he is a juvenile crow and is in Pelipen [a large flight aviary] with the rest of our orphaned juveniles, where he is strengthening his flight so that he can soon be released.

Personally, this experience has helped me develop a preference for working with wildlife versus domestic animals in the future. In addition, the people you get to work with are awesome. I treasure them. They owed me nothing, yet stood by me in light of my clumsiness, awkwardness, and mishaps in an effort to advance my knowledge of wildlife. Thank you, from the bottom of my heart, for letting me be part of the Center's com
the well-being of California's wild life. missed event
Get your tickets at:
pat-benatar-neil-giraldo-agoura-hills/


Photo by Alyss schlange


An Intimate Acoustic Evening with Pat Benatar \& Neil Giraldo and Friends An Intimate Acoustic Evening with Pat Benatar \& Neil Giraldo and Friends, fans will receive an up-close and personal experience with the artists whose marriage and musical partnership have defied al odds - and withstood the test of time!

The concert will be Saturday, October 14th at The Canyon Club in Agoura Hills and will benefit California Wildlife Center! Little Cae and Brandon Jenner will also be performing at this not-to-be-
wherethemusicmeetsthesoul.com/events/
California Wildlife Center is partnering with Colcanyon Estate Wines in Malibu on Fine Wine for Wildlife! $100 \%$ of the proceed Cabernet Sauvignon will go to CWC to provide food for the $4,000+$ animal patients we see every year! These wines were both recognized by Wine Enthusiast Magazine The Caberne Sauvignon was awarded 91 points \& was selected as "Editor's Choice". The Merlot was awarded 86 points. A two-bottle pack with one bottle of each wine is priced at $\$ 78$ (plus tax \& shipping).

Just one order will feed songbirds in care for a day, two order will feed six seal pups, and three orders feed deer fawns for a week! Order your wine today at: www.Colcanyon-estate-wines.com/finewineforwildlife/

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## West Nile Virus in CWC's American Crow Patients

## By Melissa Hartman, Administrative Assistant

## Of all the American Crow patients we see, $15 \%$ carry the disease.

In 2016, California Wildlife Center admitted 238 local American crows for a variety of reasons-chicks apparently abandoned by their parents, fledglings fallen out of a nest too high to allow them to be replaced, adults suffering from broken limbs and open wounds. But more than 40 of these birds came into our Center with troubling symptoms including a lack of balance both at rest and while mobile, weakness, lethargy, even seizures. West Nile Virus-WNV—is listed as the cause of death on 37 of these medical records.

WNV has hit American Crows particularly hard. In the summer of 1999, the disease first appeared in New York City, where a dead crow at the Bronx Zoo foreshadowed what was soon to come. Within four months, tens of thousands of crows perished over the tri-state area. Tests conducted indicated that for this sleek, intelligent bird, the disease was 100-percent fatal. Many other species, from jays to sparrows to finches, also proved susceptible. Within five years, WNV had spread to the Bay Area leaving millions of birds dead in its wake.

Here at CWC we see a significant population presenting with the telling neurological signs of WNV: limb weakness, head twitching, and paralysis. Our treatment is supportive care. We use anti-inflammatory medications and maintain their nutritional requirements. Mild cases may recover but sadly severe cases seldom do. Those that recover reportedly are immune to future infections by the virus.

## WNV At-A-Glance

- West Nile Virus can be fatal to humans; less than $1 \%$ of those infected
- However, $80 \%$ of infected people will not show any symptoms
- Flu-like symptoms mainly transmitted through mosquito bites, not through other animals
- Primarily affects birds, but also bats, horses, cats, dogs, chipmunks, skunks, squirrels, rabbits
- Vaccines are available for horses but not for people


## You Can PREVENT WNV

Standing water is the culprit. Reduce the number of mosquitoes around your home by emptying water from gardening containers, buckets, gutters, pool covers, pet water dishes and birdbaths. Monitor sprinkler runoff as well. The most effective way to AVOID WNV is to prevent mosquito bites:

- Use insect repellents
- Wear long sleeves and pants from dusk through dawn
- Install or repair screens


You can help us reduce the number of American Crow admissions by clearing standing water. Make sure in the coming months when mosquito activity is high, you stay safe in the outdoors and have fun! number of American Crow
admissions by clearing

