Feather Imping
By Dr. Guthrum Purdin, Veterinarian

Birds live by their feathers. They need them to keep warm, to stay dry in the rain and most of all, they need them to fly. There’s a rhythm to molts during which old feathers are shed and new ones grow. If a feather breaks or is damaged, the bird is stuck with it until its next molt. When multiple flight feathers are broken, flight may be impossible. For these birds, unable to find food or escape predators in the wild, life is at an end.

When such patients are brought to CWC, there are options available, determined by species and the type of flight feather affected. Some species can have the broken feather stump removed and it will grow back, even when not in molt. For others, like hawks and falcons, removing a broken feather can permanently damage the follicle it grows from. Fortunately, there’s another option. This is an ancient process called “imping” invented by falconers centuries ago.

If there is enough of the original feather shaft present, an undamaged feather from the same location on the same species can be trimmed to replace the broken feather’s missing portion. An “imping needle” is inserted inside the shafts of both the broken feather stump and the donor feather. Hundreds of years ago, these “needles” were made of iron dipped in brine that would rust, firmly attaching the two parts. Today imping needles can be made of bamboo whittled to fit. Other materials include cactus needles, wire, metal skewers, fiberglass, and feather shafts from smaller birds. Rather than rust, fast setting modern epoxies are used, fixing the two parts into a single unit.

The imped feather needs to be as strong and durable as the original, able to take the stresses of wind and aerial acrobatics. The positioning also needs to be exact. Bird feathers in flight form a single unit, scooping the air and lifting the bird up like airplane wings. Poorly positioned imping allows air to leak between the feathers, forcing the bird to work harder to stay aloft. (continued on page 2)
This is especially true for those that hunt from above. Peregrine Falcons can catch other birds and bats in midair by having perfectly aligned feathers allowing for tremendous speed and maneuverability. Owls rely on stealth; their feathers are aligned to make them silent in the air—an imperfectly imped wing is noisy, alerting their rodent prey to the hunter’s approach. An imper needs to understand avian lifestyles and adaptations.

The number of patients who need to be imped varies each year. Sometimes there are only a few birds who require this procedure, while other years we might receive dozens. One of the greatest moments of working with birds is watching one whose feathers were broken or burned, flying off towards the horizon.

A Mouse Tale
By Cori Carlson, Administrative Coordinator

A Southern California Edison biologist brought a rare patient to California Wildlife Center (CWC) this March – a young native Pocket Mouse. This small mammal can be found in chaparral and grasslands from the San Francisco Bay area to Baja California. Brownish gray in color with white bellies, large ears and hind feet, the mouse has a distinctive fur-tipped tail. The juvenile Pocket Mouse admitted to CWC arrived thin, hypothermic, and with dried mud caked on her feet and tail. She also had an old tail amputation, which was possibly caused by a predator. The amputation had healed on its own and didn’t seem to cause any challenges.

After examining the patient, our wildlife technicians gave her fluids and placed a heating pad in her enclosure to help raise her temperature. Once she was stabilized the Pocket Mouse started eating and gaining weight.

The tiny mammals are most active at night and have fur-lined pouches in their cheeks to store food as they forage. They eat seeds and grasses, sometimes adding leafy vegetation or insects. They get water from the seeds they eat. To mimic her diet, our patient was offered grass and dove seed. The seeds were clearly her favorite. She filled up her cheeks and then stored them for later all around her enclosure.

The native Pocket Mouse is a solitary mammal who remains in burrows during the day, blocking the entrances with dirt to keep it cool and humid. At night the mice forage until their cheek pockets are full and then return home to hide their food along the passageways of their burrow.

Trying to provide our patient with an environment as close to her home in the wild, our technicians pickedminer’s lettuce on site and found that when they put some in the mouse’s enclosure with the roots and dirt attached, she got very excited and ran around and around through the grass.

After about 10 days in care, this native Pocket Mouse was ready to be released. Our rescuer generously offered to take her back to her wild home in Castaic.

The Secretive Pacific Harbor Seal
By Heather Henderson, Marine Program Manager

Harbor seals are found in nearly every ocean across the globe. There are even two local sites in Malibu that support year-round populations, and yet our Marine Mammal Rescue Team receives only one or two reports per year about a harbor seal in distress. How can this be? Pacific harbor seals (Phoca vitulina) are very shy and go to great lengths to keep their distance from humans. They are phobics, or true seals. Phobics can locomote on land, however their grace and comfort are exhibited in the water. They slyly float and swim through kelp beds and quietly bob at the surface. When hauling out of the ocean to warm up and rest, they choose small rocks surrounded by water instead of crowded sandy beaches.

There is a good chance that when you are in the ocean or near the water’s edge, a harbor seal is keeping a close eye on you without you noticing them. While diving or kayaking a curious harbor seal may do a swim by, but unlike the gregarious California Sea Lion, they are unlikely to engage. Harbor seals are so shy that when a mother leaves her pup on the beach to go out and forage, she will delay returning if people are nearby. Concerned beachgoers, assuming that a young seal was abandoned, have caused pups to become orphaned by remaining too close to and preventing the mom from returning.

If you encounter a harbor seal hauled out on the beach, do not touch them. Even if they are young and/or injured they are easily startled back into the ocean, which prevents aid from being given. If you see a seal in need of help and the animal acknowledges your presence, then you (or your dogs) are too close! Immediately step back 50-100 feet, take a zoomed in photo and call our local marine mammal rescue team for advice.

Pacific harbor seals are a wonderful part of the biodiversity of our coastline. Please enjoy them from a distance!
Let’s Take This Show on the Road!
By Denys Hemen, Education Manager

All of us here at California Wildlife Center are constantly advocating for native wildlife. Whether it’s on the phone with one of the tens of thousands of calls we receive each year or answering questions from our friends and families about their wildlife encounters, we do our best to support animals through education. One person at a time, we explain why that fledgling bird is okay to leave alone or why those raccoons are hanging out in your yard. Through our years of experience here, we have accumulated a wealth of knowledge to teach to others, one person at a time. Well not anymore!

To get our word of how to successfully coexist with wildlife out to even more people, California Wildlife Center is happy to announce that we are greatly expanding our Education and Outreach program in the coming months. I am personally very excited to be participating in this new chapter of California Wildlife Center. After 15 years of working in and managing the hospital, I am eager to get started with the new challenge of bringing our message to an even broader audience and hopefully introduce some practical ways we can help wildlife succeed on a planet filled with humans!

We are in the beginning stage of developing programs for all ages. From the over 400,000 students in the Los Angeles School District to HOA meetings, we will develop distinct presentations to meet the needs of all communities. In our future education vehicle, we will bring our displays, microscopes, binoculars, art supplies, and video equipment all over Los Angeles County answering questions and helping kids connect to nature. We look forward to seeing you out there on the road! We have been fortunate to have received funding from the previous Third District Supervisor Sheila Kuehl to embark on this ambitious new program and we are excited to bring our knowledge out to the public!