COSMETIC TESTING
Approximately 26 million animals are used every year in the United States for scientific and commercial testing. Animals live in windowless laboratories, and are subjected to a battery of tests, including having chemicals placed in their eyes or on their skin, and being forced to ingest or inhale chemicals to assess toxicity. We have provided refuge to many animals born in research laboratories, and have seen first hand the pain and suffering inflicted upon them. Animal Defenders has a very enlightening video on YouTube regarding primate research.

http://www.youtube.com/watch?v=FquetBwGho#t=579

While many people have been led to believe that animal testing is mainly focused on the scientific and health industries, the reality is that 94% of all animal testing in the U.S. is done to determine the safety of cosmetics and household products. In contrast, the European Union banned the testing of finished cosmetic products on animals in 2004, Israel did the same in 2007 and India did so in 2013.

There are many companies out there that do NOT utilize animal testing for their products. LUSH fresh handmade cosmetics, a supporter of PPS, is one of those companies, and they have initiated a world wide campaign, Fighting Animal Testing, to spread awareness (see link below). As part of their campaign, LUSH did a series of live demonstrations in stores across the world with performance artists depicting animals undergoing cosmetic testing. Their video makes a moving and strong statement; it can be viewed here:

https://www.youtube.com/watch?v=f4K9iSyj_Lk

On March 5, 2014 Representative James Moran introduced the Humane Cosmetics Act (H.R. 4148), to phase out the sale of cosmetics tested on animals. Please contact your state Representative to let him/her know that you support H.R. 4148!

http://www.opencongress.org/bill/hr4148-113/show

Sources:
http://www.fightinganimaltesting.com/the-lush-campaign/different-testing-policies/
http://animal-testing.procon.org/
http://www.reuters.com/article/2013/03/11/us-eu-cosmetics-testing-idUSBRE92A0M820130311
Malama Ola the Monkeys
Caring for the Health and Wellbeing of the Monkeys

One of the most important aspects of our work at Pacific Primate Sanctuary is monitoring the health of the monkeys. Much of our primate population is elderly, and several individuals require extra care due to geriatric illness. This specialized care is based on the symptoms the monkey is presenting, and may include medications, individualized diets, stabilized branches, ramps and walkways, heat lamps, indoor housing, and extra bedding.

Spotlight on Leticia, a 13-year-old Cotton Top Tamarin. Leticia was diagnosed with an enlarged heart and pulmonary edema in 2012. She receives several medications and supplements to help with the symptoms of her disease, including Benazepril, Salix, CoQ10, and Hawthorn Berry. Prior to starting these medications, Leticia had mobility problems, weight loss, weakness and lethargy, but fortunately, the medications manage her disease very well. To ensure that Leticia stays safe, we have created a jungle walkway that runs the full length of her enclosure. She also has thick, stable branches throughout the enclosure. To keep her weight up, Leticia receives extra high calorie foods every day.

Please help us continue to provide Leticia, and the other elderly primates at Pacific Primate Sanctuary, with the necessary nutrition and essential medication!

WAYS YOU CAN HELP the MONKEYS at PPS

Donating to Pacific Primate Sanctuary can be as simple as doing an Internet search! Visit GoodSearch.com and designate Pacific Primate Sanctuary as your charity of choice, and get started using this wonderful program. Each time you do a search using GoodSearch, a small contribution will be made to PPS! GoodSearch offers many other ways to generate donations for Pacific Primate Sanctuary, including GoodShopping, GoodDining, GoodTravel, GoodOffers and more. Visit their website to find out the details:
http://www.goodsearch.com/

Give the Gift of Your Service and Volunteer Your Time
We are currently in need of more local volunteers! We need Animal Caregivers, Handy people, and Gardeners/Landscapers. Retirees are welcome. If you live on Maui and are interested in becoming one of Pacific Primate Sanctuary’s Angels, by volunteering your time and skills, please e-mail pps@pacificprimate.org
**OUR WISH LIST**

You can contribute to the monkeys by donating much needed items, including:

- commercial power washer
- heavy-duty weed eater
- gardening supplies & equipment
- pet carriers

- sewing machine
- construction tools
- pillowcases and baby blankets
- ride-on lawnmower

*Please contact us at pps@aloha.net if you have an item you’d like to donate!*

**How to Donate Directly**

We deeply appreciate your continued partnership. You, and your family and friends, can make tax-deductible donations to the Sanctuary on our Website: www.pacificprimate.org and on FaceBook, using PayPal, or by sending a check to:

Pacific Primate Sanctuary  
500-A Haloa Road  
Haiku, HI 96708

*Your support is instrumental in providing for the monkeys’ basic needs and contributing to their wellbeing. May you experience the inherent happiness in helping the Beings with whom we share the Earth.*

**Malama Aina, Malama Kanaka**

Take care of the land and the land will take care of you!

**Reduce Palm Oil Use**

Palm oil is currently the one of the leading causes of deforestation worldwide! The majority of palm oil is grown in the tropical countries of Indonesia and Malaysia, where palm oil plantations under active cultivation cover 16 million acres, an area similar in size to West Virginia, and this area is expanding. We can all help stop this destruction from spreading by making the choice to avoid purchasing products with palm oil. Unfortunately, this is no easy task, because palm oil can be found in so many different products. The El Paso Zoo has launched a Mobile App to help people make better choices about their purchases!

*The El Paso Zoo presents: “The Palm Oil Guide and Scanner”. Find out what products contain palm oil and how to find alternative products without palm oil. From hand lotion to cosmetics and cookies – and even some “healthy” and organic items – palm oil is used in a variety of*
products we purchase every day, but the true cost of palm oil is the destruction of tropical forests. Oil palm plantations are expanding around the world as they clear rainforests to make way for larger and new palm production operations. Join the international boycott against products that contain palm oil and purchase similar products that do not contain palm oil. The choices you make every day will help decrease the demand for products that contain palm oil and help increase demand for products from responsible companies. Encourage companies that use palm oil to use alternative oils or palm oil that comes 100% from sustainable plantations that have agreed not to destroy wildlife habitats. Make the right choice today and help protect millions of wildlife and plant species like elephants, tigers, orangutans and countless other rainforest animals.

This scanner is designed to help you make better choices at the store when you purchase food and cosmetic products that might contain palm oil. The choices you make are critical to the survival millions of plants and animals, global efforts to protect biodiversity, the health of the ecosystem and the quality of life for people everywhere.

Sponsored by the El Paso Zoological Society
Get the App here: http://palmoilapp.com/

PPS INTERNSHIP

Sustainability Internship
Terese, a member of the PPS Advisory Board, is working towards a degree in sustainability at the University of Hawaii Maui Campus. She selected PPS for her required 3 credit Internship, focusing on efficiency through sustainability, while supporting the Sanctuary’s continued efforts to protect, preserve, and rehabilitate endangered primates. Terese is the first Sustainability Intern, but this will be an on-going opportunity for local students. Interns will be supported by senior staff during the internship, and will benefit from their mentorship and exposure to endangered species care and conservation, making this a mutually beneficial association.

Terese has made great progress in putting in a huge vegetable and herb garden next to the animal’s enclosures, as well as setting up composting bins (made out of old wooden pallets) at 3 locations around the facility to make use of the wheelbarrows full of plant material, leftover feed, and unusable fruit & vegetable waste left over from the donations we bring in twice weekly. Terese is furthering a Sustainability Volunteer Program: recruiting and doing intake and orientation for two new volunteers who will provide invaluable help with gardening and horticulture. She has been working tirelessly and is creating long lasting, innovative, self-sustaining systems, as well as providing inspiration and support to our nonprofit organization! Terese has also been researching the installation of solar panels at the Sanctuary to reduce the exorbitant electricity bills we have been paying (averaging over $1,000 a month!).
Switching to solar energy will initially cost about $12,000, (we may be able to get a $1,000 rebate from the Hawaii Energy Commission). This would lower the Sanctuary’s electric bills for years to come. We are beginning a sustainability campaign, asking our supporters to become part of the *PPS Solar System* by donating any amount towards a solar energy system for PPS.

**After the PPS Resident Internship... Where Are They Now?**

Since leaving PPS, Edie has been working at C.A.R.E Centre for Animal Rehabilitation and Education Sanctuary at Ba-Phalaborwa South Africa in the Kruger National Preserve as the Rehabilitation Phase One Supervisor for Orphaned Baboons. Orphans are rescued, raised and released back into the wild at age four into troops that have been forged over their time living at the sanctuary. Orphans that arrive at the center, have seen their parents poached and killed and the babies are often found clinging to their mothers. Once there, they are bottle fed and nurtured like any infant. There are a total of 700 baboons in all at the center including adults from the research industry. The sanctuary is on the Olifant River and is teeming with elephants, giraffes, lions, hippos, leopards, crocodiles, impala, wild baboons and monkeys, to name a few, who move through the sanctuary property. Although very busy in her new role, and there on a three year visa, she thinks about the Pacific Primate monkeys often and with great fondness. Edie writes-

"I truly enjoyed my time at PPS. Coming from a zoo background, it was my first experience and involvement with the world of sanctuaries, which broadened my outlook, philosophy and perspective on animal conservation. It was an unforgettable experience I will never forget and I feel so grateful that I had the opportunity to work at PPS, the relationships I built and the unforgettable memories and attachments I made with those very special charges, each unique in personality. My life was enriched and touched by all I experienced this past year including the magical setting of island life. Thank you again to Pacific Primate Sanctuary and everyone who touched my life. I will never forget my time there."

**CONTINUING EDUCATION**

**Special Topic: Katie**

Journal Article Summary: “Reliably signaling a startling husbandry event improves welfare of zoo-housed capuchins (*Sapajus apella*).”

Animals housed in any captive setting are affected by all observed actions of their human caregivers, even those actions that may not be directed toward the animals themselves. Therefore, as caretakers, it is important to consider how those dependent upon us respond to our behavior in order to minimize stress and nurture their wellbeing. Findings from behavioral research suggest that predictability and familiarity are key factors in determining how husbandry events (such as cleaning enclosures, feeding, providing veterinary care, etc.) will impact animals’ perception of and response to these activities. Typically, the more able an animal is to predict any stimuli, the less stress he or she will exhibit in response. Control or choice in their exposure to stimuli helps to increase predictability, and presumably therefore increases animals’ sense of security and ability to prepare for situational changes. In
captivity, where animals have little or no control over events occurring around their enclosures, awareness of this idea is vital to maintaining a healthy, calm environment.

Predictability can be altered in two ways: temporally (i.e. by adhering stimuli to a fixed time schedule) or through association with a unique signal. In the second scenario (signaled predictability), a cue, such as a distinct sound, is given just prior to the occurrence of a specific event. Through classical conditioning, animals can learn to associate this cue or signal with the activity it precedes, and thereby expect and prepare for an event before it occurs. This association will be strongest and most effective if signals are consistent and easily distinguishable from other sights or sounds the animals might observe. Although performing husbandry activities at predictable times of day helps to reduce stress indicators, reliable signaling is even more effective and allows more scheduling flexibility!

In their study, authors Rimpley and Buchanan-Smith measured changes in the stress-behaviors of 12 captive brown capuchin monkeys (Sapajus apella) before and after introducing a reliable signal to a common husbandry event. Their chosen monkeys lived at a zoo where food was given at the same time each day when zoo keepers entered their enclosures through a series of doors, some of which also lead to nearby enclosures or corridors. Rimpley and Buchanan-Smith spent a full day observing the capuchins’ behaviors to determine a “baseline” behavioral repertoire and typical sources of stress. In order to determine how the sound of doors opening and closing affected the monkeys, the researchers recorded indications of stress five minutes before and five minutes after each door could be heard.

They found that, although only 30% of audible door movements actually preceded enclosure entry, the capuchins responded similarly each time they heard a door. The sound of the doors had become an unreliable signal for the capuchins, causing them to sometimes incorrectly expect food (which caused anxiety if food was not delivered) or a stressful husbandry event (such as loud repair work, veterinary examinations, etc.). Signs of stress included self-scratching, threat faces, branch shaking, urine washing, vigilance (i.e. discrete and direct staring toward a particular individual, such as through the corners their eyes while their heads were turned) and jerky motions. The keepers then began knocking clearly only before opening a door to enter the capuchin enclosure for two weeks to allow the monkeys to associate knocking with enclosure entry. After this period, Rimpley and Buchanan-Smith again observed and recorded indications of stress. They found a high frequency of stress behavior following the sound of doors prior to the introduction of knocking, and a very dramatic decrease after implementing the signal! According to the Safety-Signaling Hypothesis, when a signal is reliably paired with an upsetting or startling stimulus, the absence of that signal will assure animals that a situation will remain safe.
It is important to note that in the absence of reliable signaling, animals may associate certain people, sights, or sounds that were previously observed near an unpleasant event with feelings of anxiety (that is, that person or stimulus may unwittingly become an unreliable signal, thereby causing stress). Depending on the animal and the event, a negative association may be established after only one upsetting event, causing long-term stress of the animal each time he or she observes the caregiver or “signal” originally paired with the upsetting stimulus. Equally important is the need to be sure to ascertain the specific purpose and value of new signals before creating them. Once a signal is established and an animal relies upon it to predict certain events, this must be maintained consistently; a suddenly change or discontinuation can result in severe stress to intelligent animals such as monkeys. Also, in order for a signal to be effective in stress reduction, close observation must be performed to accurately determine whether stress behaviors are truly in response to specific events or stimuli.

Here at PPS, reliable signaling could help our monkeys predict and prepare for otherwise potentially startling events such as power-washing, enclosure entry, or noisy work on special projects, as well as positive stimuli such as feeding and (tasty) medication! If this were to be implemented, careful preparation would need to be conducted to ensure the efficacy of any new signals, and these signals would then need to be performed by each team member throughout the years to come.


Special Topic, Intern Shani: Hemochromatosis
Hemachromatosis (or iron storage disease) is a genetic disorder that causes the body to absorb too much iron from food and store it in the body’s tissues and organs. This disease occurs in many primate species including callitrichids. Hepatic hemosiderosis (an overload of iron in the liver) is one of the most common postmortem findings in captive callitrichid species.

The excess iron can be stored in the liver, heart, and pancreas. The excess iron poisons the organs and can cause life-threatening conditions. Iron deposits in the pancreas can decrease insulin production and cause diabetes mellitus. Iron stored in the pancreas can also cause pancreatic cancer. Iron deposits in the heart muscle can cause heart enlargement, heart arrhythmias and heart failure. Iron stored in the liver causes liver cirrhosis, liver cancer and failure. This disease is virtually undetectable in its earlier stages unless a blood test or liver biopsy is done. Signs of hemachromatosis include lethargy, muscle weakness, weight loss and abdominal and joint pain.
There are two types of iron: heme iron and non-heme iron. Heme iron comes from meat products and is absorbed directly into the body. Non-heme iron can only be absorbed into the body in the presence of vitamin C. Here at PPS the majority of the fruits we feed the monkeys are high in Vitamin C, so we try to limit their iron consumption. We are also experimenting with products that inhibit non-heme iron absorption. There have been several studies showing that tannins are likely to reduce iron absorption by 65%. So far we have not had any luck getting the monkeys to drink peppermint tea or eat leaves! Some studies have shown soy protein and calcium may help to decrease iron levels. We have had more luck feeding the monkeys soy protein, and they enjoy tofu, edamame and soy yogurt! We are continuing to research new ways to reduce the amount of iron the marmosets and tamarins consume.

References:
Dr. Cathy Johnson Delaney, DVM
www.hemochromatosis.org
www.cdc.gov/ncbddd/hemochromatosis
emedicine.medscape.com/article/177216-overview

Human beings are a part of the animal kingdom, not apart from it. The separation of "us" and "them" creates a false picture and is responsible for much suffering. It is part of the in-group/out-group mentality that leads to human oppression of the weak by the strong as in ethic, religious, political, and social conflicts.”
—Marc Bekoff, Animals Matter: A Biologist Explains Why We Should Treat Animals with Compassion and Respect

We hope you have enjoyed this issue of Pacific Primate Sanctuary’s E-Newsletter. Thank you for your support of our life saving work. Because of compassionate people, the Sanctuary can continue to provide a place of peace and happiness for over 50 primates saved from research laboratories, animal dealers, and tourist attractions. Here they can heal, form social groups, and live free from exploitation.