

Wild Tracks

southwest wildlife rehabilitation & educational foundation, inc.

Spring 2007

Southwest Wildlife's New Website

Our new website will be up and running approximately June 15th. It will have a whole new look and expanded educational resources, but can be found at the same location: www.southwestwildlife.org. Check it out!

Email Newsletter

On our new website, under News & Events, you will be able to sign up for our Email Newsletter. What's so special about our email newsletter? Well, with our email newsletters:

- you will be able to enjoy *full-color photos!*
- Southwest Wildlife will save the costs associated with printing and mailing the newsletter to you, meaning that Southwest Wildlife will be able to utilize a larger portion of our funds for the housing, feeding, and medical care of our wild friends; and
- Southwest Wildlife's newsletter will become more environmentally friendly



Wolf 435, also called "Chuska".

Wolf Reproduction

Maintaining genetic diversity in the captive Mexican gray wolf population is vital to the long term success of the Mexican Gray Wolf Recovery Plan. Southwest Wildlife is not only a holding facility for this important project, but has participated in research projects to help this endangered species.

Hormone Monitoring Study

Three female Mexican gray wolves at Southwest Wildlife took part in an important hormone monitoring study in 2006. Each received an Ovuplant implant, which is the size of a grain of rice and implanted with a syringe, much like a microchip.

After the wolves were implanted, their feces were collected daily for two weeks, then weekly for two months. The feces specimens were sent to Saint Louis, Missouri, to be analyzed for hormone levels, allowing researchers to discover the number of days after implantation that estrus occurs. The hormone

Chuska

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Beavers: the “Sacred Center”

by Jeff W. Egerton

Beavers were given the nickname “sacred center” by American Indians because of their ability to create rich habitats for other mammals, fish, turtles, frogs, and birds. They create habitats by damming streams in shallow valleys, where the flooded areas then become wetlands.

Wetlands serve many useful purposes. They slow the flow of floodwaters, prevent erosion, and raise the water table. Wetlands also purify water; when several feet of silt collect upstream of an old beaver dam, toxins in the water flow through the silt and are broken down, so the water downstream is cleaner.

Beavers are popular enough to be the national symbol of Canada, and two states, Oregon and New York. It is said beavers have had more to do with shaping Canadian history than any other factor.

The beaver’s popularity may stem from their incredible intelligence. These aquatic rodents are smart enough to create canals through the vegetation in their ponds, so when they fell trees on the far side of the pond, they do not have to drag the trees through tangled vegetation. They are also smart enough to avoid danger by spending most of their time underwater. With short legs and stocky bodies, beavers are rather clumsy on land, and are defenseless against a bear, wolf, or mountain lion. Beavers also build air holes into the ceilings of their lodges—a family of beavers spending a cold winter in the den has to have air. One last sign of the beaver’s intelligence: while other species are trying to survive the dead of winter, beavers are warm and well fed in their lodges, even though they might be on a frozen lake.

Beavers may be clumsy on land, but they are not clumsy when it comes to building. They build their lodges with the peeled saplings and branches after they have eaten the outer layer of green bark or cambium.

Their lodges are built with a food storage area, where the tenants can store enough branches to see the entire family through the winter. They dam streams, so as to raise the water to a level where it surrounds their lodges, like a protective moat.

Beavers live in their lodges with six or more family members, including parents, yearlings, and kits. Like many other species, they will adjust their reproduction and population numbers, so they do not over populate an area beyond the food availability.



In the spring beavers are most vulnerable to predators. Just like humans, when it warms up, the kids want to get out of the den. There are several lean and hungry predators out there looking for fresh meat after enduring a long winter. Spring is also a time when the parents have to venture out, where danger awaits, to make repairs on their dam and lodge.

As previously noted, beavers provide for other species, but the contribution beavers make to humans is constantly debated. Beavers are tough on farmers in some areas. They feed on the farmer’s crops and then dam streams, which flood the crops. They also flood forests, which can cause damage to the forestation. Beavers also reduce forestation by cutting down trees; the average beaver cuts down over two hundred small trees each year. Culverts are built beneath roads for drainage, but beavers see this as a hole in an otherwise fine dam- so they plug the culverts and roads are flooded out due to the beaver’s excellent construction skills. Wherever beavers are found, their value and contribution is a subject of constant discussion.

For many years, beavers were hunted because their luxurious fur was highly valued. Beaver fur was thought to make the best hats on earth. Trappers came close to wiping them out in many areas, until the 1930s when beavers became scarce and the prized beaver hats fell out of fashion. Due to urban sprawl, beavers have been pushed out of many areas in the lower forty-eight, but conservation efforts have been successful. Luckily, beavers are holding their own where they remain, and they have been reintroduced to some areas. In Canada, thanks to efforts by provincial governments and less sprawl, beavers are thriving. It is refreshing to hear nature’s general contractor is staging a comeback.

Second Chances

Many of our injured animals had healed. Some of our orphans had grown up. They were ready to return to their natural habitat. Depending upon their species, they were released in a pack or a herd, alone, or with a mate.

This is not as easy as it seems. Potential release sites have to be researched. Questions we ask about release sites include:

- Is there a good food supply and a permanent water source?
- Is the habitat appropriate for the species we are releasing?
- Is the release site remote and far away from people?

As the human population grows, there are fewer and fewer places that are far from people, but we do our best.

Many animals have been released over the past six months. Coyotes, raccoons, ringtails, gray foxes, a badger, bobcats, and three herds of javelina have begun their second chances in the wild.

These are photos taken at our latest raccoon release. You may remember we told you about Sparky (named by his rescuers), the baby raccoon that was almost electrocuted after being chased up a power pole. His run-in with electricity resulted in a power outage for the entire town of McGuireville. After a lengthy rehabilitation, these pictures are of his release, along with other raccoons, in a riparian habitat near McGuireville.

Wild About Wildlife XI
dinner and auction

6pm • Saturday
March 15, 2008

Four Seasons Resort
Scottsdale at Troon North



Reconnoitering.



“Sparky” makes his dash to freedom. He promptly disappeared into the underbrush, never to be seen again.

The Beaver

Beavers, *Casta canadensis*, are often called Nature's Engineers because they are one of the few animals capable of altering their entire environment in their efforts to create what they perceive to be ideal living conditions. In Arizona, the largest population of beavers is found in the White Mountains. Beavers are also found in smaller, widely scattered riparian areas throughout northern Arizona.

The length of an adult beaver is from 40 to 48 inches and that includes the tail, which is from 10 to 16 inches long. The tail is about six inches wide and serves several purposes. When swimming, it is their rudder. When standing on its hind legs the beaver's tail will act as a prop to help the beaver remain vertical. The beaver will also slap its tail on water to signal danger to other beavers in the area. Beavers normally weigh in around 40 to 50 pounds. Where food is abundant, however, they've been known to reach 80 pounds. Males and females are about the same size, although occasionally females will outweigh males.

For swimming, beavers are equipped with webbed hind feet, transparent eyelids, and valves on their ears and nose. The valves close once the animal submerges and allow it to stay under water for periods of three to four minutes, or enough time to swim close to half a mile. In extreme cases they can stay submerged for up to fifteen minutes.



One of the beavers' most renowned tools is their sharp teeth. Four incisors are about an inch long and continue to grow throughout a beaver's lifetime. Because beavers feed on green bark (the cambium layer), their teeth are their primary method of gathering and managing food.

Their teeth are also invaluable in the manufacture of their dams and lodges. Before they can build a lodge, they build a dam across a pond or stream. This is necessary because the water must be deep enough for underwater entrances into their lodges, which provide protection from predators. Their lodges are made from sticks, small trees, and mud and look like domes sticking up from the water.

The beaver's coat has attracted much attention, so much so that they were once hunted, almost

to extinction, because their luxurious fur made the best hats on the market. Beaver fur is a rich, dark brown on the surface. The layer of fur beneath the surface layer is lighter in color, although it's rarely seen. The beaver has glands on its belly that provide the animal with oil it uses to grease its fur, thereby protecting it from the cold water and temperatures. Those scent glands are also used to mark their territories.

A beaver's diet is varied and largely consists of what they can find in the immediate area. Their favorite foods are water lily tubers, apples, clover, green bark, and leaves. They eat fish, but only dead ones they find; they're not hunters. During winter months, they subsist almost entirely on the bark of trees they have stored underwater. They do not hibernate, but generally only leave their lodges to eat.

Beavers mate for life. They may mate during their third year, in January or February. Their kits, up to eight in a litter, are born after approximately 105 days' gestation, usually between April and June. They are born with a thick coat of fur and can swim within hours of birth. They will nurse for six weeks, after which both parents and their older siblings will bring them solid foods until they are ready to venture outside the safety of the lodge. They can care for themselves at about two years of age, at which time they may leave their family groups and strike out on their own, in search of a mate.

Southwest Wildlife Needs...

...a new or like new van for our Education Department, to transport exhibits and visual aides to off-site presentations.

...a new or like new laptop and projector for educational presentations

...a new or like new color copier for the Education Department

If you can help with these three items, please call our Education Department at 480-471-3621 .

...new large, heavy-duty washer and dryer.

...boulders or faux rocks for the new wolf enclosure's rock cave/den.

...a landscape company to redo our existing desert tortoise exhibit and install a re-circulating water feature. This would give us a riparian exhibit for our desert tortoises.

...supply and install a re-circulating pump for our existing mountain lion enclosure. This would give them something to play with and keep their water fresher.

...a landscape company to freshen up the landscape within our exhibit areas.

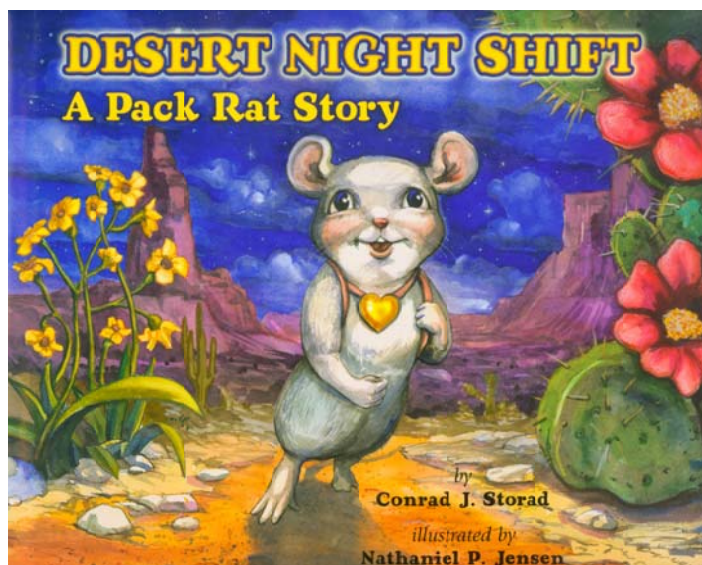
...a backup newsletter editor. The newsletter editor determines which articles go into each issue, finds writers for each article, does the newsletter layout, and coordinates the publication of the newsletter with the mailing house. We need someone to work closely with our current newsletter editor and who can take over in case of emergency.

...in addition, our current editor would be happy to turn over the newsletter *layout* to someone with a higher skill level!

...a backup database manager. The database manager maintains our donor database on a special program, interacts regularly with our accounting volunteers, mails thank you letters to each donor, and interacts with the newsletter editor and fund raising volunteers. We need someone to work closely with our current database manager who is willing to learn the program and able to take over in case of emergency.

Please call our office at 480-471-9109 if you would like to help with these items or volunteer jobs.

Children's BOOK REVIEW



Desert Night Shift A Pack Rat Story

by Conrad J. Storad

illustrated by Nathaniel P. Jensen

Conrad J. Storad has done it again! His newest children's book, *Desert Night Shift: A Pack Rat Story*, is a wonderful tale about Penny Pack Rat and her adventures collecting items for her burrow.

Penny Pack Rat likes to venture out of her burrow at night, when the desert is cool, searching for stuff to collect. One night, Penny decides to look for a shiny spoon for her Nana. Penny has quite an adventure looking for the spoon; she has to out-run a pack of coyotes to avoid becoming a meal.

This fantastic story, told in verse, gives us a glimpse into the fascinating lives of pack rats. The end of the book has a wordlist and some natural history on pack rats, so young readers can learn more about the crafty desert-dweller. The illustrations by Nathaniel Jensen are detailed and colorful, and create a wonderful setting for our pack rat hero. Storad's previous books, *Don't Call me Pig! A Javelina Story* and *Lizards for Lunch, A Roadrunner's Tale*, were big hits, and his latest book, *Desert Night Shift: A Pack Rat Story*, is another outstanding tale that will appeal to readers of all ages.

level information helped breeding facilities know when to artificially inseminate females and when to harvest oocytes (eggs).

Harvesting Eggs

Egg vitrification, the harvesting of oocytes from the ovaries, may become an important way to utilize the genetics of important, older females in future genetic crosses, even after they are past breeding age or deceased. Wolf 435 is one of the genetically highest-ranked females in the Mexican Gray Wolf Recovery Program. She is a 12-year-old female who lives at Southwest Wildlife.

In early 2007, the Mexican Gray Wolf Species Survival Plan recommended wolf 435 for egg vitrification. The procedure, which had been performed only twice before, would be performed by a vitrification specialist from Japan. The original plan was to fly the specialist to Arizona to do the procedure, rather than putting wolf 435 through the stress of leaving her home and shipping her to Saint Louis. Unfortunately, there was not enough time for that, so the specialist would have to perform the vitrification in Saint Louis. It was decided an ovariectomy, the removal of wolf 435's ovaries, would be performed at Southwest Wildlife's surgical clinic.

Ovariectomy

Timing was everything. For the harvested oocytes to be viable, the ovaries would need to reach the vitrification specialist waiting in Saint Louis within 5 hours of their removal! To further complicate the situation, the ovaries could not be chilled but would need to be kept at constant "wolf temperature" for the entire five hours. There could be no delays or mistakes or all would be lost; there would be no second chance.

Ten days after wolf 435 received an Ovuplant implant, Dr. Leo Egar performed the ovariectomy. He also collected blood serum from her when she was implanted and again when the ovaries were removed, for additional hormonal and blood studies.

Success

Everyone at Southwest Wildlife was elated when, later that day, we received the news the ovaries had arrived on time and in good condition—and the specialist had aspirated (harvested) over 50 oocytes

from them! The success of this endeavor will insure that wolf 435's genes will live on.

Wolf 435 recovered well from the ovariectomy and returned to her enclosure to rejoin her companion the following day. Southwest Wildlife was proud to be part of this cross-country effort to help save an endangered species. We would like to thank everyone who made this innovative procedure possible—and successful!

New Education Director

Southwest Wildlife is fortunate to have been able to hire Michelle Myers in February as our new Education Director. Michelle comes to us from the Arizona Science Center, where she had been their Family Program Coordinator. Michelle has also been the Night Camp Assistant Manager, an animal keeper, and an Outreach Specialist for the Phoenix Zoo.

Her experience as a science educator, along with her passion for wildlife, makes her an invaluable addition to Southwest Wildlife's fast-growing Education Department. Michelle and our Assistant Education Director, Hillary Williams, have already proven to be a spectacular, enthusiastic team, dramatically increasing the number of both on- and off-site educational presentations over the past few months.

Welcome to Southwest Wildlife, Michelle!

Wildlife Education: Tours and Presentations

Presentations are designed to meet the needs of the individual or organization requesting the presentation. School programs may be designed to complement the Arizona Department of Education's Science Standards, particularly Science Strand 4 - Life Science. Visitors to our Nature Center may see black bears, mountain lions, bobcats, javelina, Mexican gray wolves, and other wildlife native to the southwest.

To arrange an educational presentation or a tour of Southwest Wildlife's Nature Center, please contact our Education Department at 480-471-3621 or sweducation@gorvw.net.

Southwest Wildlife would like to send you our newsletters—in full-color!—via email.

Please provide your email address, along with your full name and address, on this form and return it to us. You may also sign up for email newsletters on our new website at southwestwildlife.org, News & Events.

You may also make donations online at: southwestwildlife.org, Donate to SWREF.

I/we would like to help Southwest Wildlife by making a tax deductible donation in the amount of:

___ \$25 ___ \$50
___ \$100 ___ \$250
\$ _____ Other

Our 501(c)3 number is 86-0765249.

Name(s):

Address:

Email Address:

You may make your donation via Visa or MasterCard by completing the following:

Name, as it appears on card:

Billing address for card:

Card number:

CVS # (usually located in signature strip on back of card):

Expiration Date:

Authorization Signature:

Wild Desert Nights

Saturday, July 28 • 7:00pm - 9:30pm

Discover animals that are out of this world, as well as those that are more down to earth, in Southwest Wildlife's exciting new family program *Wild Desert Nights*.

Join us for a **twilight tour** of our Nature Center, as we observe desert animals active at night.

Then take a **safari to the stars**, where we will explore the wildlife in the night sky with Mike George of the Arizona Science Center.



Ursa Major drawing copyrighted by Learning Media Ltd.

The evening also includes refreshments and activities for the entire family.

Reservations are Required.

Please contact Southwest Wildlife's Education Department at 480-471-3621 or sweducation@gorvw.net to make reservations.

Adults, \$10.00 • Children under 16, \$7.00

(Not recommended for children under age 3.)



Rehabilitation & Educational Foundation, Inc.

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Southwest Wildlife wishes to thank all individuals and organizations that have given so generously to enable us to help the many animals that come through our doors—we couldn't do this without your help!

With special thanks to:

Dr. Steve Gilson & Dr. Mark Soderstrom of Sonora Veterinary Specialists
Dr. Lilian Rizzo, Dr. O'Brien, Dr. Carol Samson, Dr. Leo Egar, Dr. Gorman, and the Veterinary Interns and staff at Sonora Veterinary Specialists
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Dr. Visser, Dr. Kaufman, and Staff of Aid Animal Dental Clinic

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Nestle Purina

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Cindy of Image Works for creating our new website
California Pools for maintaining the bear pool
Chris Hock of North Valley Pump
Wes Patrick of Critter Control
Tohono O'odham Farming Community
Dale Husband of Husband Car & Truck Repair
American Express volunteers who helped to build new aviaries on their Volunteer Work Day

Southwest Wildlife needs YOU!

We need volunteers, whether you can help from your home or on site, whether you can work a few hours each week or a few hours each month.

Call us at 480-471-9109 or email us at volunteers@extremezone.com if YOU can help!