

Return to the Wild

By Amy Boam, ZooNews Editor

On a stormy night in early May, a fisher mortality signal came in to the U.S. Forest Service (USFS) Pacific Southwest Research Station. A female fisher, part of a multi-year study near Dinkey Creek, had gone eight hours without movement, causing her radio tracking collar to send out the signal indicating that she had perished, most likely preyed on by a mountain lion.

USFS officials knew this wasn't just any fisher, but the mother of a young litter of kits. They had tracked her earlier and knew where the nest was; now it was a matter of getting to the babies while they were still alive. In the pouring rain in the middle of the night, rescuers tracked down the lightning-cracked tree where the fisher nest was believed to be. Through the crack in the tree, they inserted a camera probe to make sure something was in there and still alive, not knowing how many babies were in the litter or if they were still in the nest. The camera showed at least one baby alive inside the tree.

With the camera probe, the USFS rescue team measured how far down into the tree the nest was located. Using those measurements, they were able to cut a hole just above the nest to get the fisher kit out. Indeed, just one baby, a male, was inside the nest, but he was alive and seemed well.

Enter Fresno Chaffee Zoo into the story. Dr. Lewis Wright, our Zoo Veterinarian, had previously been contacted by the USFS about helping with veterinary services for fishers in this project should the need arise. Wright got a call in the

middle of the night about the rescue effort, and met the USFS rescuers and the fisher kit at the Zoo hospital at about one in the morning. The fisher kit was handed over to Wright, who took it into his care to hand-raise it just as he would a Zoo baby.

Wright took the fisher baby, estimated to be about three weeks old at the time of rescue, to his home and kept it in an incubator. The little fisher still had its eyes closed and needed lots



The tiny fisher kit just after arrival at the Zoo hospital.

of care, including bottle feedings about five times a day, daily weight checks and food intake monitoring to insure his health and well-being. Much like a kitten, the fisher kit was fed milk replacer out of a bottle several times a day, then graduated to cat kibble.

“Until his eyes opened, he just layed around and slept most of the time,” Wright said. “One time he got scared by something and was comforted by me holding him.”

At around six weeks of age, the baby fisher’s eyes opened up and he started moving around more. That’s when he was brought to the Zoo and placed in an isolated quarantine area away from human contact. Since the beginning, the intention was to raise the fisher kit until he was old enough to take care of himself, then he would be re-released into the wild. If anything should happen that would make him ineligible to return to the wild (such as contracting a disease), the Zoo would keep him and he would become part of our Zoo’s animal population.

An important part of preparing a wild animal to return to its native habitat is keeping it isolated from human contact and preventing it from contracting any diseases that could be taken back to the wild and infect the native population of animals. To accomplish this, the fisher kit was placed in a completely isolated quarantine holding area, complete with its own ventilation system, and has since had contact with humans only if they are completely covered from head to toe – not only to “mask” the human appearance but to prevent them from transferring anything harmful to the fisher kit from their clothing or body.

During this time, blood samples from the fisher kit were taken and sent to Mourad Gabriel at UC Davis and the Integral Ecol-

ogy Research Center. Gabriel and his colleagues have been collaborating with the USFS fisher project in screening fishers captured in the project for exposure to and active infections of a wide suite of pathogens and parasites. Our particular fisher kit was tested for exposure to canine distemper and canine parvovirus, two diseases that have been present in and could threaten wild populations. The initial bloodwork came out clean; the kit was also vaccinated against the diseases and has had further tests to screen for active infections.

“What’s really important is that [the information we gain from this] one individual, plus information from other projects, [contributes to the] main goal of further understanding the ecology of this species so we can better our conservation management program as a whole,” Gabriel said.

By the end of July, the kit was deemed ready to return to his natural home. He had had no direct human contact since his eyes had opened at six weeks of age, and little by little he had been introduced to some of the foods he would eat in the wild, such as mice, rat pups and baby quail.

The USFS, headed by Craig Thompson, secured a spot on some private property near Dinkey Creek, part of this fisher kit’s mother’s original territory, to build a “soft-release” enclosure to help him adjust to life in the wild. This being the first time the USFS has attempted to release a captive fisher into the wild, they sought advice from colleagues in northern California who had a previous successful release of a fisher.

What they came up with was a large pen, 12’ by 20’ by 8’ high, with a natural floor and a solid wall on one side that will be used to feed and monitor the fisher without being seen. The area was thinned



QUICK FACTS ABOUT FISHERS

- Fishers (*Martes pennanti*) are small carnivores that typically weigh 2-4 kg and are common in the north-eastern United States and Rocky Mountains.
- Fishers used to be found up and down the Sierra Nevada Mountains and the coastal range of California, but due to population declines from fur trapping in the 1930’s and logging in the 1940’s, they are now virtually limited to the central Sierras, Arcata and Olympic National Park in Washington.
- Fishers are solitary and very nomadic, living and hunting in the tree canopies of the forest.
- Their front paws can rotate 180 degrees, allowing fishers to literally run straight down trees.
- Fishers eat any small mammals they come across, including birds, lizards, squirrels and southern hare; in CA they also are known to eat mushrooms and berries.
- Fishers are the only known species besides mountain lions that hunt porcupines.
- Predators of fishers include mountain lions, coyotes and bobcats.

somewhat of trees and bushes to be able to accommodate the enclosure, then additional forest structures such as logs and trees were brought back in to make it as natural a space pos-

CONTINUED NEXT PAGE

CONTINUED

sible. The structure has also been fitted with video cameras both inside and out so that USFS officials can monitor the fisher's progress without him ever being exposed to humans.

On July 29, Wright, Thompson, and others from the USFS took the fisher from the Zoo and introduced him to his new temporary home in the wild. Again avoiding any human contact, the transport box was placed up to a hole in the solid wall of the enclosure and the fisher was let go.

"The transfer went fine," Wright reported. "There are four video cameras going so we watched him come out of his 'cubby' box via the monitor and he did fine. He came out right away and did some exploring. We watched for about 30 minutes and he stayed on the perching (he had never touched dirt yet), but so far so good."



Left: Workers put the finishing touches on the "soft release" enclosure built specially to assist the fisher kit in adjusting to his new life in the wild. Right: Inside the enclosure, showing the solid back wall, through which food will be delivered to the kit and monitoring can take place without exposing the fisher to human contact.

The fisher will remain in the enclosure until early September, which is when young fishers naturally begin to move out on their own. Meanwhile, Thompson and his colleagues will continue to feed the fisher through the solid wall of his enclosure, slowly introducing live prey (such as mice and squirrels) so that he

can learn to hunt and develop necessary skills to survive in the wild. He will be monitored via the video cameras to see whether he is developing the predation skills that he needs, and when he is deemed ready he will be fitted with a radio tracking collar and released. 🌿

Group Events ad