

Native beavers suffer in Tahoe as USFS protects non-native kokanee

By Tom Knudson, Sacramento Bee

To Sherry Guzzi, the beaver dam on Taylor Creek was more than a watery jungle of sticks and branches.

In that snarl of debris, she saw hope for a species long regarded as non-native in the Sierra but which new research claims has occupied the range for centuries and is key to ecosystem health.

Late last month, her hope was extinguished when the U.S. Forest Service tore down the dam to protect a tourist facility celebrating a non-native species: kokanee salmon.

“They are doing all this to showcase an introduced species,” said Guzzi, co-founder of the Sierra Wildlife Coalition, a local environmental group. “It’s a little nuts, isn’t it?”

The Forest Service, which is having its 23rd Kokanee Salmon Festival this weekend, defended the action. But spokeswoman Cheva Heck said the agency hopes to make its facilities and festival more beaver-friendly in the future.

“The Forest Service’s main interest is in promoting native species,” she said. “We are aware that over time our messages are going to need to change.”

What’s happening here is more than a flap over a furry, flat-tailed rodent with a penchant for gnawing down trees and damming up streams. It is part of a wider controversy over the role of beaver in nature and their provenance – native, non-native or both? – in the Sierra Nevada.

“A beaver can go 10 kilometers by land or 50 kilometers by water in a day. What would keep them out of the Sierra?” said Richard Lanman, a historical ecologist from Los Altos and co-author of two new studies concluding beaver occupied the range long before settlers arrived.

“Every mountain range from northern Mexico to the Arctic tundra, from the Atlantic to the Pacific” had beaver, Lanman said. “And they were supposedly never native to the Sierra? This makes no sense.”

Lanman and his colleagues also write that beavers help “fish abundance and diversity in the Sierra Nevada” and their dams “reduce (the) discharge of nitrogen, phosphorus and sediment loads into fragile water bodies such as Lake Tahoe.”

Their papers challenge long-held assumptions and have met with resistance in some quarters.

“I have learned to view beavers with great suspicion,” said Phil Pister, a retired fisheries biologist who believes the animals are not native to the southeast Sierra. “Beavers are remarkable creatures, but only where nature intended them to be.”

The conflict is muddied by a century of dramatic management swings – a story that begins with the near eradication of beaver by 19th century trappers and their subsequent protection from exploitation by the California Legislature in 1911.

One of the most colorful chapters played out in the 1930s and '40s when the California Department of Fish and Game and the U.S. Forest Service transplanted beaver to the Sierra, in some cases by air.

The idea was to conserve soil and water behind their dams and expand opportunities for trapping. As one Fish and Game publication at the time put it: “California’s busy beavers are

being transplanted, sometimes by parachute, to mountain areas where their industry and skills will benefit the state.”

“Beaver dams in the mountains save water for fish, wildlife and agriculture,” it added.

Thriving by the 1980s

By the 1980s, beavers were doing so well that Tahoe National Forest officials launched an effort to remove them – “by transplant or trapping” – north of Truckee, citing damage to trees, wetlands and campgrounds.

“Beaver populations are on the increase,” one 1987 Sierraville Ranger District document reads. “This poses a direct threat to many of our riparian areas.”

Some old beaver dams remain visible today – minus the beaver. “It was like you snapped your fingers. Aliens came and got them. They were just gone,” said Tom Leavell, a cattle rancher who opposed the agency action.

He said beavers and their dams made great fishing on a stream he called Little Creek. “It was the best fishing I’ve ever had,” Leavell said.

“I would take a hundred brook trout a season. And it replenished itself every year.”

Now “you are lucky if you can catch 20 a year,” he said.

Agencies still treat the species harshly.

When beaver flooded a Forest Service campground in Mono County in 2010, for example, the state Department of Fish and Game signed a depredation permit authorizing the agency to kill three animals. A hand-written note on the permit notes that a trapper did just that – taking two males and a female.

Elsewhere, the animals – which back up water behind dams to

protect themselves from predators and stockpile an aquatic pantry of nutritious sticks and branches – have been killed for toppling trees and damming culverts and waterways.

“They have a right to be here,” said Heidi Perryman, founder of Worth A Dam, a beaver conservation group in Martinez. “There is a way to manage their difficult behavior. And there is a reason why you should bother to do it.”

“Killing them is an extreme response to managing their behavior,” she added. “It’s like shooting all the cars that speed. It would work, but at what cost?”

Dam dates to Middle Ages

Perryman is one of the researchers whose articles in California Fish and Game, a peer-reviewed scientific journal, challenge the long-held view that beaver did not inhabit the Sierra above 1,000 feet on the west slope.

Some of the most persuasive evidence in the articles comes from a beaver dam found buried along a creek in Plumas County. Samples sent to a laboratory for radio-carbon dating showed the structure was built at the dawn of the Middle Ages, around A.D. 580, and used and reused until around 1850.

“Personally, I think beaver were keystone species that helped form meadows in the Sierra by trapping sediment behind their dams,” said Mike Kossow, a Plumas County fisheries consultant who helped discover the dam.

Researchers turned up other supporting material, too, including historical accounts from famous California mountain man James “Grizzly” Adams and other 19th century fur trappers who reported finding beaver at widespread locations in the Sierra.

The researchers also searched official U.S. Geological Survey place names and found several locations in the Sierra named

for 'Beaver,' including four Beaver Creeks, one Little Beaver Creek and one Beaver Canyon Creek.

"Either there were a lot of people named Beaver who named those streams after themselves or they named them after beaver," said Lanman.

The articles have caught the attention of the California Department of Fish and Game, which is re-examining its beaver policies in the Sierra, said Matt Meshiry, an environmental scientist with the department.

"If they are a native component, then we need to examine land use and species management ... in terms of maintaining and preserving the ecosystem," Meshiry said.

Pister, the retired fisheries biologist, is skeptical, saying beaver have harmed golden trout – the California state fish and a native species – in the Eastern Sierra.

"We found beaver dams prevent migration and genetic interchange between populations while silting in the best food-producing and spawning areas," he said. "Trout would grow larger in beaver ponds, but at a biological price."

Non-native fish festival

The conflict this fall at Lake Tahoe is not about golden trout but kokanee salmon, a non-native fish introduced to Lake Tahoe in 1944. Every fall, navies of the bright red fish surge up Taylor Creek to spawn.

And on the bank, armies of tourists gather to watch at a 23-year-old Forest Service salmon festival. For many, the highlight is strolling through a streamside corridor offering an aquarium-like view of the fish.

But this year, beavers built a dam not far from the facility, threatening to flood it and a trail. The Sierra Wildlife Coalition urged the Forest Service not to disturb the dam,

suggesting a piping system be installed to permit water to flow through the dam, preventing flooding and protecting beaver – or that the level of the pathway be raised.

On Sept. 26, Forest Service crews dismantled the dam instead. The beaver weren't harmed but Guzzi fears for their future.

"They have to stockpile food for the winter because they don't hibernate," she said. "So this is taking away their food. And they could starve."

"It's a strange corner for the Forest Service to be backed into because it's all artificial," Guzzi added. "It's a little ironic, to say the least."

Heck, the Forest Service spokeswoman, acknowledged the subject is challenging.

"There are a lot of complex issues," she said. "Are you dealing with two non-native species and balancing their needs? Are you balancing a native and a non-native? There has been quite a bit of conversation."

She also said dismantling the dam was the right decision.

"Essentially, we were hoping we could discourage them (the beaver) from rebuilding in that location while allowing downstream dams to persist."

"It's one thing to suggest things. It's another to be the entity that has to implement solutions," Heck added. "We have to look at what the maintenance load would be (and) whether it's actually going to work."

Also up for discussion is the focus of the popular fall festival on a non-native species.

"It does take some thought about how to shift an event like that," Heck said. "What would that new theme be? How are we going to talk about both the kokanee and native species?"

In recent days, the Taylor Creek beavers have been busy with matters of their own – gnawing down more aspen and willows to repair the dam the Forest Service tore down.

By Thursday, the dam had been rebuilt. But when Guzzi returned to the site Friday, she said it had been destroyed again.

“On some level, (the Forest Service) must realize how ludicrous a situation this is,” said Guzzi. “It’s so counterproductive. They are wasting tax dollars and harassing an animal that is good for the lake and its clarity.”