San Francisco Chronicle
NORTHERN CALIFORNIA'S LARGEST NEWSPAPER

Born to be wild trout: Local fish goes global

- Rick DelVecchio, Chronicle Staff Writer

April 22, 2005

The path to the creek led through a soft, round forest bed where the stump of a giant Oakland hills redwood once stood. It ended at a set of fresh raccoon paw prints in muck at the stream's edge.

Peering into the muddy current through polarized glasses, biologist Pete Alexander of the East Bay Regional Park District saw what he was looking for: the gravel mound of a rainbow trout nest. As the nest's two adult guardians darted upstream for safety, Alexander noted that concealed deep within the camouflaged pile of pebbles were the eggs of another generation of East Bay trout.

Drinking in oxygen at a fast-running turn in Redwood Creek, the eggs would grow for 50 days in water temperatures of 50 degrees Fahrenheit, Alexander said. The adults who survived raccoons, birds and other dangers would seek out cool pools to hide in through the summer.

As the waters rose yet again in coming winters, the lucky ones would migrate downstream to their inland ocean, Upper San Leandro Reservoir. The strong few would swim back upstream to spawn in the spring, completing the cycle.

Of all the symbols of natural wildness that people connect with coastal California, the humble rainbow trout is one of the most potent. It's becoming the object of growing interest throughout the East Bay -- studied by scientists, given ground by public agencies that handle urban water supply and flood control and adopted by backyard conservationists who are cheering fish sightings from Martinez to Fremont.

Last fall, for example, a landscaper spotted a big adult steelhead that had made a hiding place in a culvert under Berkeley's Fifth Street. This winter, members of Oakland's Friends of Sausal Creek glimpsed a wild scene in a restored section of the stream running through a dense urban neighborhood: a trout leaping a waterfall.

"That's what it really was all about for us," said Mark Rauzon, a board member of the Sausal Creek group. "Our goal in life as Friends of Sausal Creek is to create a green swath from hills to bay. To actually see them moving was indicative of that ancient pattern."

In its freshwater form as rainbow and in its oceangoing transformation as steelhead, this fish has something that more spectacular creatures lack: the ability to live wild in the heart of the city. It travels, lurks and sometimes breeds in streams running behind urban backyards and within the roar of freeways, taking advantage of the breathing room offered by watersheds that are slowly becoming cleaner and more free-flowing.

Many people don't know that the rainbow is an East Bay native. Last month marked the 150th anniversary of its identification as a separate species.

As memorialized in a plaque near the gate to Redwood Regional Park in the Oakland hills, W.P. Gibbons of the California Academy of Sciences named it a new species of the salmonid family after studying three speckle-sided specimens from the San Leandro Creek drainage. The spot was near where Alexander recently found his trout nest.

Exported across North America and to several other continents, the rainbow went on to become one of the world's most highly prized game fish.

"From our local watersheds, this trout has traveled to New Zealand, Europe and Chile," Rauzon said. "I guess in one sense we're introducing our invasive species, but it's been well-received.

"You can say our rainbow has gone everywhere. "That's pretty cool to see one East Bay treasure's gone global."

In California, hatchery rainbow bred for easy catching are stocked in fish ponds every spring. They're a different, more fragile variety than native rainbow, which have managed to hang on in protected East Bay streams and reservoirs with their wild genes at least partially intact.

It's likely that the eggs growing in Alexander's nest are living links to the wild trout of the sky-high redwoods and free-running waters of 1855. The historical connection adds to the intensity of the effort to help these fish reclaim their original home.

"People want some of that wildness back," said fisheries scientist Gordon Becker of the Center for Ecosystem Management and Restoration, a nonprofit organization in Oakland.

Ever so slowly, it seems, they are getting it.

Rainbow introduced into Wildcat Creek from Redwood Creek in the early 1980s are thriving in downtown Richmond. Alexander said they're known to nest under concrete pilings and in submerged shopping carts.

Steelhead were seen swimming up San Lorenzo Creek in Hayward this winter, searching for spawning grounds in the concrete flood-control channel.

"I was out in the field with fisheries biologists, and steelhead came up right in their face," said Emmanuel daCosta, an engineer-scientist with the Alameda

County Public Works Agency. "You couldn't ask for a better group of people to show itself to."

Urban creek-restoration projects are helping historical spawning streams to rebound, although the effects are still tentative and involve only a tiny fraction of the creek system.

Stream-improvement workers recently found eight individuals in Alhambra Creek at F Street in Martinez, eight to 10 in a pool on Sausal Creek above Interstate 580 in Oakland and 127 in Codornices Creek upstream from Interstate 80 in Berkeley.

"I think the fisheries biologists have been somewhat caught by surprise by the discovery of these populations," said Ann Riley of Berkeley, river and watershed restoration adviser for the San Francisco Regional Water Quality Control Board and co-founder of the Urban Creeks Council.

"I think at one point the whole idea of urban salmonid fisheries was written off," she said. "Now people understand the potential of restoring these fisheries in urban areas."

Sightings of salmon in some streams that open to the bay also are on the rise. This winter, a resident saw an unidentified salmon in San Lorenzo Creek in Hayward, a chinook was spotted swimming in Wildcat Creek below I-80 and a small run of chinook took place in Marsh Creek in Oakley and Brentwood under the wide eyes of a citizen salmon monitoring program.

"That's what really gets the community excited, realizing there's all this wildlife in their backyard," said Sarah Beamish Puckett, senior restoration ecologist for the nonprofit Natural Heritage Institute in San Francisco.

She said the Marsh Creek run numbered in the hundreds and indicated that with further improvements the stream could support steelhead, a more sensitive animal.

By historical standards, these numbers are small. But conservationists say that their significance is large, arguing that the evidence indicates that native fish are able to fill opportunities offered by a combination of improved stream health and the removal of barriers.

"There's a lot of interest these days by a variety of folks in restoring that habitat and trying to replace as much of that population as we can -- slowly," said Jeff Hagar, a fishery biologist who lives in El Cerrito. "Given the magnitude of the changes that have occurred in the East Bay, it's really tough to make those kinds of restorations, but on a small scale there's a lot of potential."

Conservationists hope to create a fish passage around a barrier on Marsh Creek enabling migrating fish to swim seven more miles upstream. A study of Wildcat Creek in Richmond and San Pablo will determine if it's feasible to remove barriers to fish passage. In Oakland, the Sausal Creek group wants to study the upper end of the watershed, concerned that the headwaters are being muddied by development in the hills.

The most ambitious work is taking place on Codornices Creek dividing Albany and Berkeley and in the Alameda Creek watershed in southern Alameda County.

A restoration project by the cities of Albany and Berkeley and the University of California is gradually returning the most urbanized section of Codornices Creek to a semblance of the meandering, shaded stream it had been before the area was developed. The renewed section should be able to support wildlife, including the potential of steelhead runs.

On Alameda Creek, two dams in Niles Canyon are scheduled for removal next year in the first step of a 10-year effort to give fish clear passage from the bay to the creek's headwaters in the Calaveras and San Antonio reservoirs.

The watershed may be able to support hundreds of steelhead, said Brian Sak, a San Francisco Public Utilities Commission biologist.

Conservationists hope to be able to jump-start the run by moving some of the 400 to 800 robust adult steelhead landlocked in the reservoirs. Sak said studies are being done to determine if the fish are genetically the same as steelhead that had free run of the watershed before it was dammed.

If the answer turns out to be yes, these fish one day may mingle with steelhead swimming upstream, and the East Bay would see the first restoration of a steelhead run from ocean to mountains.

Every wet winter, a few steelhead try to swim upstream to the Alameda Creek headwaters but are blocked by dams and other barriers. Their struggles are poignant to see. Every winter, volunteers with the Alameda Creek Alliance rush out to try to rescue fish hurling themselves against the concrete weir where BART crosses the creek in Fremont.

"They keep coming back to these creeks," daCosta said. "They want to come back, but there's a lot of problems. They're trying."

Over the rainbow

Creek watchers have had numerous trout sightings, from Martinez to Fremont.

1. Alhambra Creek, Martinez at F St.: Eight juvenile trout spotted in a pool last summer.

2. Pinole Creek, below I-80: Two steelhead spotted in 2002.

3. Wildcat Creek, downtown Richmond: Trout hiding in submerged shopping carts and under concrete pilings.

4. Wildcat Creek, Tilden Park near merry-go-round: Prime habitat for trout and bathing dogs.

5. Codornices Creek, Berkeley, UP tracks and 7th St.: Creek restoration to resemble historic flow; 127 trout counted in one area last year.

6. Sausal Creek, Oakland, El Centro Avenue: Trout seen leaping waterfall this winter in restored section of urban creek.

7. Redwood Creek, entrance to Redwood Regional Park: State marker noting identification of new species -- rainbow trout -- in 1855.

8. San Lorenzo Creek, San Leandro/Hayward: One unidentified salmon spotted this winter a few miles up concrete flood-control channel.

9. Alameda Creek, Fremont: Upstream-swimming steelhead seen hurling themselves at the BART weir in January.

10. Upper Alameda Creek watershed: 400-800 adult rainbow or steelhead -- it's unclear which -- live in the Calaveras and San Antonio reservoirs.

11. Niles Canyon, Fremont: Two dams are scheduled to be removed next year.