Big Meadows Fishery – From 1976 to 2012
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Early in our marriage my wife, Donna, and I began to seek out areas that we could fish in pleasant surroundings which also had a quality fishery. Big Meadows (which lies northeast of Visalia, California in Sequoia National Forest) was discovered to hold both that and more. At an elevation of nearly 8,000’ it provided solstice from the San Joaquin Valley heat. The stream that traversed the meadow also happened to hold a substantial population of small Brook Trout. The openness of the meadow and the sheer numbers of fish made Big Meadows Creek an ideal fishery as an introductory stream for new fly fishers, both young and old. The meadow itself had its own beauty not only in its surrounding mountains and forest, but perhaps especially, not long after snow melt, when terrestrial vegetation began to flourish and bloom. This meadow became a yearly destination for a late spring fishing trip.

A curiosity about the meadow was that this fishery was pretty much exclusively a late spring event. We soon discovered that within 4 to 6 weeks after snow melt the quick weed growth would choke the stream’s flow. After that, at least until fall when the sedges and aquatic weeds died back, the only fishing available was in the few deep slots and small ponds where the fish typically held deep due to water surface temperatures that often exceeded 85 degrees in July and August. Not only was it difficult to bring fish up from the depths, it was difficult to keep your fly and fly line free of the shoreline sedges, and aquatic weed growth made early summer fishing almost impossible.

Big Meadows fishery was of reasonable quality for that short time in late spring each year immediately prior to the previously described quick weed growth. Though small, there was an abundance of fish. The meadow was free from casting obstructions save for an occasional willow bush or meadow sedges. We felt Big Meadows Creek could serve a much needed purpose. It seemed a good location to introduce fly fishing to those new to the sport. Our local fly fishing club in Visalia, California, the Kaweah Fly Fishers, annually held introductory fly tying and fly casting classes in late winter and early spring. Donna and I felt that this creek was the perfect location to take our club’s students for their first outing, and the timing for the students would be when the stream was at its best. As soon as the snow cleared off the road to the meadow, the fishery was ripe to be explored. Though some new fly fishers did have opportunity to take advantage of the fishery, the short time frame for quality fishing along with unpredictable dates when the road might be cleared of snow made it challenging to set dates from year to year. Frustration for novice fly casters constantly snagging rapidly-growing meadow and stream grasses as well as removing algae from flies narrowed the time slot to get our students into the meadow.
As the years went by, our desire to use this fishery as a place of instruction did not diminish, but the fishery did, and thus the motivation to bring new fly fishers there waned.

In the mid to late 1970’s, Big Meadows Creek contained what we referred to as “writhing masses of brook trout.” Once the fish saw us they would panic into a dark mass, circling and twisting about in quantities of up to 50 or more fish in a pod. Still, if fished with caution, a day of releasing 100 fish or more was expected. I recall one day when, without moving my feet, I released 40 fish. Stepping forward 10 feet I released 10 more before deciding it was time to give this pool a rest. The adjacent photo looks toward that pool as it appeared in 1983.

Big Meadows Brook Trout were never larger than 8” then, with most closer to 5”-6”. Though size remained consistent, by the late 1980’s the numbers of fish began to drop off. We considered several factors that might be the cause of the decline: the impact of drought years, other fishermen not releasing their catch, damage by cattle grazing in the meadow to name a few. Randomly alternating years the fishery would once again improve, but the drop-off of numbers was, though not linear, obviously progressive.

For some years we had observed an increase in down-cutting of stream banks, but flow was reasonably consistent with fish found throughout the stream, bank to bank, and pools holding more fish than open runs. Still something was happening to degrade the fishery. The roll of the meadow as a “sponge” was being degraded. What was causing the stream incising? We understood that this damage was draining the water for the fishery. We also understood that by rapidly draining the meadow it was also progressively killing the terrestrial vegetation.
Sedges that before had done so well in the wet meadow were no longer thriving and some areas had become devoid of any vegetation. Vegetation that once covered the meadow when wet was now principally seen only below the downcut banks until de-watering allowed them, too, to die back. Pines that once only lined the meadow were now encroaching into the meadow. The stream banks were crumbling. The gabions and rock dams that at some point in the meadow’s history had been built to reduce what their builders saw as early signs of the meadow’s demise, were also crumbling, though a few over the years showed signs of being rebuilt by someone unknown to us. The same pool pictured earlier that once had been so productive within a few years took on a different appearance. Now our best day fishing from this pool produced 2 small fish.
The incised stream banks in many areas had become unstable. Why was the meadow being de-watered? We considered damage by cattle grazing freely throughout the meadow. Could the obvious damage they created be the cause of the meadow’s decline? Perhaps drought years impacted the fishery. But even in good snow pack years, by the late 1990’s the stream dewatered to the point that in late spring to early summer there was no longer any flow through the meadow. The fish’s survival depended upon those few remaining deep holes that had not silted in or had been trampled by the grazing cattle. We began to fish the meadow less due to our disinterest in a poor fishery along with our discouragement in seeing the meadow die with no hope then of finding a solution.

In 2003 Jayne Ferrante from the Fresno, California, fly fishing club, Fly Fishers for Conservation, approached one of the Kaweah club’s members, Mark Cave, with a request. She told Mark that the Fresno club had funds set aside for a conservation project and wondered if the Visalia club had a project in mind that we might work on jointly. Mark recalled our desire to develop Big Meadows into a fishery that could be used to instruct those new to fly fishing as well as our hope that our now degraded fishery might be restored.

In the fall of 2003 Jayne, Donna and I visited the meadow with Roland Brady, PhD, CSU Fresno Earth Science instructor. After review of the meadow Roland agreed that the meadow was dying and that a full evaluation would be worthwhile. Jason Olin, a graduate student at CSU Fresno, took on the project of creating a redevelopment plan as his Master’s thesis. His 200 page thesis brought to light the issues we had been observing over the years, but what remained unclear was
an understanding of what to do to restore the meadow. Soon after, Dr. Brady brought in Jim Wilcox from Northern California who had a solid track record of meadow restoration using a concept referred to as “Pond and Plug.” Jim presented a restoration plan utilizing the “Pond and Plug” concept that met with enthusiasm by some and reserve by others. Still the project moved ahead only held back by acquisition of needed additional funds and concerns by one particular conservation group. All other stake holders soon were fully on board and the project broke ground October 6, 2007 and was completed in just two weeks.

Before construction began, in order to protect the remaining meadow fish, the stream was shocked of all fish that could be captured. They were moved to locations outside the meadow.

The project intent was to restore the meadow and its fishery over an area in excess of a mile long. Preservation of the meadow topsoil and vegetation was of utmost importance. After completion of the hard construction, many of us were involved in the reestablishment of the terrestrial vegetation by placing plugs of sedge in disturbed soil, collecting and spreading meadow seed, as well as planting willow “sticks” along areas where it was anticipated would need soil stabilization. Aquatic vegetation was left to its own development which we soon discovered would be incredibly rapid. No fish were reintroduced to the fishery. What fish are present today are fish that were missed during shocking and survived the construction along with their offspring. And survive they did, but more on that later. Years of future monitoring of the meadow and stream was designed into the project.

Return visits to the meadow at a variety of times during 2008 as well as photographs from several “fly-overs” beginning in November 2007 initially helped in our appreciation for how quickly the meadow began to restore itself. Of utmost importance was returning the meadow to its natural ability to hold water. It was immediately obvious even in late 2007 that the meadow had renewed its holding capacity thanks to the careful reestablishment of the meadow’s original meanders. The new “ponds” were full of water, creating habitat for a new fishery.

Meadow vegetation in less than a year showed a return in size as well as abundance. (We were promised meadow grasses would be waist high in the first year. They were.) Areas that were devoid of vegetation prior to the project had within 2 years fully reestablished. Aquatic insects once included primarily tiny midges along with a few caddis and the occasional damselfly and dragonfly. Within two years after reconstruction we now had the addition of mayflies never seen before, literally hundreds of thousands of Dragon and Damselflies along with new species of caddis. Caddis have long been considered the “canary” of water quality, so their presence along with the huge population increase of other insects was a strong indicator that the project was
proving successful. We had anticipated that the California Department of Fish and Game would return at least some of the fish back into the meadow, but none were. We observed, to no real surprise, a few surviving Brook Trout, but to our astonishment we discovered several scattered groups of fingerlings from a fall 2007 hatch!

The fish repopulated themselves very quickly. We had no idea how quickly they would return, but soon discovered it would not be rapid, yet steady. The fact that it did not repopulate quickly has actually been reassuring since Brook Trout are known to overpopulate, crowding themselves and ultimately stunting their growth, as was observed by the fishery we knew from the ‘70’s through the early ‘90’s. This new fishery was proving to be different. Every year that has followed the construction of 2007, we have caught and released progressively more and larger fish. We witnessed the most impressive spawn yet the first few days of November 2011 when we saw fish redds in every pond. Up to that point we had not seen fish in every pond, but they were there, they were spawning, and they were becoming substantial in size.
This year is proving to be the most impressive yet with Brook Trout of 13” released. Instead of a large fish being 8”, now an average fish is at least 8”. All fish are very well fed and amazingly strong. The fishing is not easy. In fact it is challenging, but not so difficult that a new fly fisher with some help that we hope to give, will have nothing less than an unforgettable day for their first outing. Skilled fishermen from Florida to the coast of California have had opportunity to fish the meadow. All have been impressed. Tom Logan, a wildlife biologist by profession, now retired from his position as the endangered species coordinator for the state of Florida, fished the meadow with us both prior to the project and since. He showed a bit of trepidation upon initial review of the project, but as of this year he has dropped the concerns he had. Tom watched with us over the years as this fishery and meadow began to die. He has now had opportunity to watch its recovery which he describes as “very significant and successful.” He fished with us last fall and observed the spawn, and again this year during the damselfly hatch the last week of May. Though his visit allowed for only 5 days fishing our area, he chose to fish Big Meadows 3 of those days. On previous visits a return to the same fishery has been rare. That speaks to the quality of this new fishery.
What will Big Meadows become over the ensuing years? Obviously time will have to tell, but if the past 5 years are an indication it will include superb fishing. Even with this year’s drought, the meadow’s ecosystem is currently more sound than we have ever witnessed. Fish populations are up. Fish size is up. All fish of the hundreds we have released thus far this year have been robust and healthy with no exceptions. Insect populations, both terrestrial and aquatic, are abundant. Bird populations are up. 30 years ago we might see from 1 to 2 pairs of Mallard Ducks. This year I counted 18 flying in a group one day. Both Blue-wing Teal as well as Mallards are present. We also found clutches of eggs as well as broods of ducklings. Different species of “shore birds” are all about the meadow. Even with the drought much of the meadow is a virtual bog with water levels up as they should be so that the meadow is once again functioning like a sponge. Only some peripheral terrestrial vegetation shows signs of being less robust this year due, no doubt, to the drought. The current result is not just a better fishery, but a habitat for many other species of wildlife. The meadow is now able to hold water longer which will be released more naturally and slowly ultimately benefiting the San Joaquin Valley aquifer.

Big Meadows fishery is not just back. Big Meadows as a fishery is better than it has been through our history with the meadow. We now have a fishery that is no longer just a spring and possible late fall fishery. It is now also a place that is easily fished all summer long. It finally can provide the teaching environment we had hoped for years ago. And we anticipate that the project itself will be a teaching tool to school students educating them about the function and necessity for maintaining our Sierra mountain meadows. We are committed to the belief that Big Meadows will continue to improve thanks to the obviously successful “Pond and Plug” project designed and executed by Jim Wilcox, to whom we are incredibly grateful.