

*The* American  
Fly Fisher

*Journal of the American Museum of Fly Fishing*



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SUMMER 2005

VOLUME 31 NUMBER 3

# Auroras and Goldenes and Ivories

R. Valentine Atkinson



**B**IRDERS THE WORLD OVER got some good news on April 28: there is an ivory-billed woodpecker living in the Big Woods region of eastern Arkansas. The last confirmed sighting in the United States was more than sixty years ago, and it had long been assumed that the species was extinct. Now, through continued habitat protection, there may be another chance to save this bird.

This is good news, of course, not only for birders, but for everyone who cares about the environment, conservation, and biodiversity—including fly fishers. No doubt some of this concern on our part is selfishly motivated—after all, we enjoy our sport and want the conditions to exist that make it possible—but certainly, for most of us, there is more to it than that. Fly fishing gets us out there and reminds us of the interconnectedness of all things. We rejoice when other species continue to thrive in spite of us.

This issue of the *American Fly Fisher* highlights similar good news in the trout world: specifically, successes in protecting the aurora trout and the California golden trout.

When four guys from Pittsburgh went fishing in northeastern Ontario back in 1923, they caught trout “colored like nothing they had ever seen before.” A subsequent trip by one of the party with an ichthyologist in tow began the long controversy as to what species, which existed in only two neighboring lakes, this fish actually was. Pollution and acid rain took their toll, and the commonly named aurora trout would have been extinct by 1960 if it weren’t for the herculean efforts of Paul Graf. From nine fish he collected and spawned, all auroras are now descended. Nick Karas gives us a fascinating account of this amazing recovery in “Aurora: The Tale of the Comeback Trout,” which begins on page 2.

The California golden trout is found in Golden Trout Creek and the South Fork of the Kern River. As is often the case, the species suffered when livestock were introduced to the area, with resulting habitat changes and destruction. David Finkel, California Trout’s conservation manager, reports on the cooperative Golden Trout Project organized by CalTrout and Trout

Unlimited and supported by matching grants by the Orvis Company and the National Fish and Wildlife Foundation. The project’s goal is to reestablish pure genetic strains of golden trout to their native waters. Last year Finkel led a sampling team to Golden Trout Creek and Big Whitney Meadow. Photographer Val Atkinson was part of that trip. “The New Gold Rush: Celebrating and Protecting the California Golden Trout in the Southern Sierra Nevada” gives some history of the species, offers detail of the project, and documents Finkel and Atkinson’s trek. This photo essay begins on page 10.

On a more fantastic note, we bring you a story of natural observation in the afterlife. Trustee Emeritus Stephen Sloan published a book last year titled *Thanatopfish: An Ocean Odyssey* (Meadow Run Press). In it, he took his desire to have his ashes scattered in the waters he loves and created an account of their conscious journey through those waters, reporting on all they see. In this excerpt, his ashes travel from Brodhead Creek downstream to the Delaware River, then to the Atlantic Ocean. As this issue was being readied for press, we got word that Sloan had died on April 28—the day we were celebrating the ivory-billed woodpecker. Stephen Sloan, a man who devoted his life to issues of fisheries, ecology, and conservation, became a trustee of this museum in the early 1980s. We are glad to have his own words here to serve as a tribute to him. “Henryville, Pennsylvania, on the Brodhead” begins on page 22.

G. William Fowler has provided us with a book review of Brian Clarke’s *The Stream*, which you’ll find on page 24. For a briefing on happenings past and present, take a look at Museum News. This issue will hit homes after our much-anticipated grand opening in June, but we promise you coverage of that event come fall.

May many species continue to color your world.

KATHLEEN ACHOR  
EDITOR



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*Preserving the Heritage  
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Aurora: The Tale of the Comeback Trout . . . . .	2
<i>Nick Karas</i>	
The New Gold Rush: Celebrating and Protecting the California Golden Trout in the Southern Sierra Nevada . . .	10
<i>David Finkel</i>	
<i>Photos by R. Valentine Atkinson</i>	
Henryville, Pennsylvania, on the Brodhead . . . . .	22
<i>Stephen Sloan</i>	
Book Review: Brian Clarke's <i>The Stream</i> . . . . .	24
<i>G. William Fowler</i>	
Museum News . . . . .	26
Contributors . . . . .	28

ON THE COVER: *Up close and personal with the California golden trout, California's charismatic state fish. Photo by R. Valentine Atkinson.*

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# Aurora: The Tale of the Comeback Trout

by Nick Karas

William H. Rinckenbach



*Aurora trout, White Pine Lake, 5 September 1925.*

ONCE UPON A TIME, in the high country of northeastern Ontario, in two lakelets—really ponds by most standards—there lived a population of brook trout that didn't look at all like brook trout. They were shaped exactly like brook trout, but their coloration was more that of an Arctic char. More apparent, they lacked the typical wormlike vermiculations on their backs that so readily identify a fish as a brook trout. Their sides were devoid of the little, tell-tale crimson spots set in baby-blue halos that mark a brook trout, and their general body coloration, especially in late summer and fall, was a brassy orange with a dark, olive-drab back. In one of the ponds, they were the only “trout”; but, in the second, they seemed to happily share it with typically colored brook trout.

Today, we can figure out how they got there, but why they came to look so unlike brook trout is a fascinating tale, open to conjecture, and still an unsolved mystery. Most people, until recently, thought these unique fish had become

Much of this article originally appeared in “Species, Subspecies, or Just a Strain?,” a chapter in Nick Karas’s *Brook Trout: A Thorough Look at North America’s Great Native Trout—Its History, Biology, and Angling Possibilities* (Guilford, Conn.: The Lyons Press, 2002, rev. ed.).

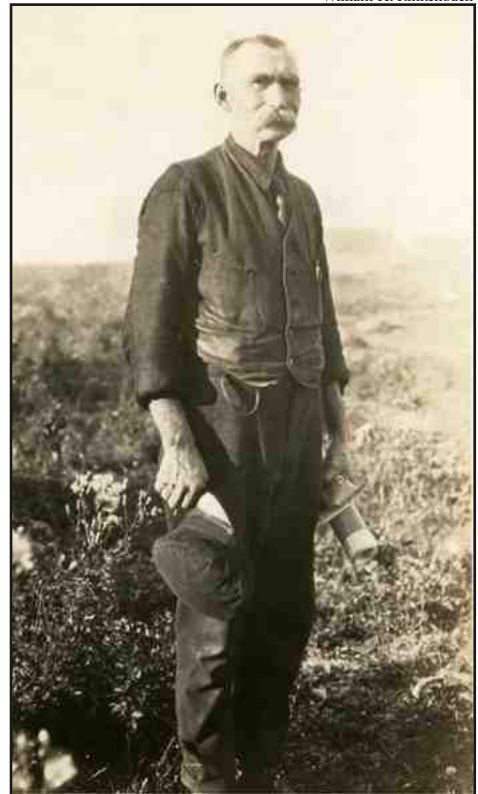
extinct during the 1950s after a nearby smeltery went into operation. The smelter’s smoke so acidified the two ponds and the surrounding waters that these unique fish and all other fishes disappeared. But the story doesn’t end there. How they were brought back involves two dedicated men—one who discovered them and one who saved them from real extinction by keeping them alive in a hatchery for three decades—as well as a cadre of scholars who may have solved the riddle of the fish’s true identity.

## THEIR DISCOVERY

I’m sure the Ojibway peoples of the North Bay Region of Ontario knew of these fish for centuries. A few locals, mostly trappers and loggers who trekked this wilderness, caught them when they needed food, but probably didn’t experience a unique revelation about what they held in their hands. Some called them rainbow trout; others, landlocked salmon. But that would change.

On 29 August 1923 a party of four American anglers from Pittsburgh, Pennsylvania (A. C. Fieldman [possibly Fieldner], Samuel Hibben, S. H. Katz, and William H. Rinckenbach),

William H. Rinckenbach



*Archie King of Latchford, Monday, 10 September 1923.*

took the train north to Toronto, then farther north on the North Bay–Timmins train, and got off at a place called Latchford, then just a whistle stop. At the time, this was the southern edge of Ontario's vast northern wilderness. The land had just been opened by the discovery of huge mineral deposits, and new explorations into the bush were rampant. Anglers, with fish on their minds, followed on the heels of prospectors. From the rail stop, the quartet had Latchford outfitter Archie King take them in his motor launch across Bay Lake, a widening of the Montreal River, and up the river towing their canoes to Lady Evelyn Lake.

From here, for four days they paddled and portaged north, up the North Branch of the Lady Evelyn River. At Gamble Lake, another river widening, they portaged their canoes for 2½ miles over a divide into Sunnywater Lake, then called Clearwater Lake. They followed its outlet to Smoothwater Lake, the Montreal River's headwaters. On the east side of Smoothwater, the terrain rises sharply in a series of high hills; some reach more than a thousand feet above the lake. This is the highest land (2,300 feet) in Ontario east of Lake Superior. On the east side of the ridge are a dozen small lakes, drained by two small, interconnecting streams, that unite and flow into Smoothwater. It was in these lakelets that they fished.

Years later, Charles Sheppard, who grew up in North Bay, remembers a story told to him as a youngster by his father, a conductor on the Temiskaming & Northern Ontario Railway. A party of Americans boarded the southward run of the train on 10 September 1923 at Earl-

ton Junction. It was actually Latchford, thirty miles south of Earlton. "They were excited with the results of their trip and were very talkative," Sheppard was told. "The main conversation was not about the biggest fish they'd caught, but about the most unusual one. It was a trout colored like nothing they had ever seen before. It was purplish on the back, red on the sides, blending to silvery on the belly. My father said the man who caught it told him he took it from Aurora Lake, and he kept referring to it as an 'aurora trout.'"<sup>1</sup>

Six aurora trout were caught by the American party. The first three were landed by William H. Rinkenbach, a chemist who recognized the uniqueness of the fish and carried them back to Pittsburgh. He took one to the Carnegie Museum in Pittsburgh for identification by Dr. Arthur W. Henn.

Sheppard's recollection may not have been as keen as he thought it was, or his father didn't retell exactly what Rinkenbach and his friends recounted. At that time, there were not many named lakes on government maps Rinkenbach used. It wasn't until a subsequent trip to the lake that a forest ranger stationed at Smoothwater Lake told Rinkenbach local trappers called it Whitepine Lake.

On 31 July 1924, Rinkenbach returned for a second time to Whitepine Lake, this time to collect museum specimens. He was accompanied by Dr. Henn, who was then the assistant ichthyologist at the Carnegie Museum. They caught aurora



"Rink" on Lake Anamanifissing,  
Monday, 10 September 1923.

trout in Whirligig as well as Whitepine Lake. Today, the two lakes that drain into Whitepine are called Aurora and Little Aurora lakes. Because they were unnamed at the time, they couldn't have lent their name to the fish. It is the other way around.

It wasn't until the following year, when additional specimens were collected, that Dr. Henn concluded his study of the fish. He determined that it was a new, distinct species unrelated to brook trout, but still a member of the char family. He gave it its scientific name, *Salvelinus timagamiensis*. Rinkenbach, because of its resemblance to the shimmering and cascading splendor of the northern lights, christened the fish "aurora trout."

## HOW THE AURORA CAME ABOUT . . . MAYBE

About 60,000 years ago, the earth's elliptical orbit went awry and caused summers to cool. For the next 40,000 years, more snow fell than melted in the Northern Hemisphere, creating a glacial sheet, in places a mile high, on North America that marched as far south as Missouri. The earth's orbit went back on course about 20,000 years ago, and a global warming began that caused the glacier to recede.

In the meltwaters that formed at their southern base, ordinary-looking brook



Breaking camp at Divided Lake,  
10 August 1922.



*Lunch on the portage from White Pine Lake to Gamble Lake, Sunday, 10 August 1924.*



*Around the campfire on the Montreal River (left to right): "Rink," Link, Goulding, and Frey, Monday, 10 September 1925.*



*Flapping the flapjacks, White Pine Lake, Saturday, 9 August 1924.*

trout swam at will, crossing huge glacial lakes that flooded across the depressed heads of many different watersheds. This gave brook trout the ability to reach every watershed, even at the highest altitudes. As the glacier retreated, thousands of big and small lakes were created, and the ubiquitous brook trout readily populated them with their progeny.

For some still unknown reason, ordinary-looking brook trout in only two (of which we know) of these thousands of lakes and ponds began to change. There may have been more lakes inhabited with aurora trout before the onslaught of acid deposition, but we have no way of knowing. No one has determined why brook trout in these two particular lakes began to modify. A plethora of tests revealed nothing unique in the environments of Whitepine and Whirligig lakes that would set them apart from scores of surrounding lakes. More significant is the short amount of time involved: it took ordinary-looking brook trout in

these ponds fewer than 10,000 years—hardly a blink of time on the geological clock—to don a new livery.

### THE DEMISE OF THE AURORA TROUT

While the search for mineral lodes opened the wilderness to fishermen via railroads, mining roads, and float planes, it also rang the death knell for many waters in the area. Smelters, to convert the newfound ore into their basic metals, were soon established south of the aurora-inhabited lakes. The largest smeltery in Canada, and still that country's worst single point of air pollution, was and is Inco, Ltd., in Sudbury, just seventy miles south-southwest of Whitepine Lake.

Emissions from the smelter's belching smokestacks were loaded with nitrous and sulfurous particles that wafted on the winds. Fossil fuel-fired factories in Kentucky, Tennessee, and Ohio added

their emissions to the mix. When washed from the clouds by rain or snow, the pollutants turned into deadly nitric and sulfuric acids. The organic landscape immediately around Sudbury was so devastated that almost all vegetation disappeared. Ironically, it was also here that American astronauts prepared for their moon landing.

Only now, because of reduced emissions, are the waters slowly recovering. Pollution affected all fishes in the Montreal River's headwaters. Along with brook and lake trout, they, too, began declining. Biologists eventually recognized the cause as an increase in the lakes' acidity. First, natural reproduction was stopped because the acidified water is highly toxic and thus lethal to trout in the egg, larval, and juvenile stages. As a result, no juveniles were added to the population. Then adults, even before reaching old age, began dying because the acidic water interfered with the transfer of oxygen in the gills. Insid-

iously, the auroras were being eliminated.

Fisheries managers became desperate. More restrictive creel limits were placed on auroras. In reality, because of the difficulty of access to their waters, aurora trout were not really affected by angling pressure. However, in 1950, the fishing season was closed, and Whirligig and Whitepine lakes given sanctuary status. The fish was placed on the endangered species list, but neither action helped. Netting of Whitepine Lake in 1958 produced no aurora trout. By 1971, they were extinct in Whirligig Lake. Their natural distribution had ceased.

## HOW THE FISH WAS SAVED

On 26 October 1927, Paul Graf was born in the Swiss village of Steinheim. Little did he or anyone know how intricately his life would be tied to a fish on another continent. His family owned a commercial fish hatchery, and when Graf was twenty-five years old, in 1952, he was sent to Canada in an attempt to open new markets. Graf never developed a Canadian branch but took a job as assistant supervisor at the Ontario Ministry of Natural Resources (OMNR) Hills Lake Hatchery. Five years later, he was named supervisor and remained there until retiring in 1987.



*Paul Graf, retired fish culturist who saved the auroras.*

As early as 1941, Ontario biologists saw that aurora trout were in danger of extinction. Early attempts to save them had failed. Either no one quite comprehended the gravity of the situation or no one was able to respond until district biologist Al Elsey came along, some fourteen years later. In late October 1955, Elsey collected fertilized eggs from Whitepine and Whirligig lakes. They hatched, but only ten fish survived. Two years later, in 1957, Graf collected his first batch of aurora eggs. They, too, died before winter's end. Graf's supervisor in Toronto ordered him, because of budgetary problems, to stop all work on propagating aurora trout.

"I couldn't," he said in an interview. "I saw the auroras as a challenge. I could not let such a unique fish die. I took a stand."

He said he told his superior, "If the trout go, I go!"<sup>2</sup>

The following year (1958), OMNR added

N. D. Patrick, another fish culturist and Swastika District biologist, to Graf's limited staff to help solve the problem. That fall, they netted nine aurora trout: one female from Whitepine Lake that was missed by a netting attempt earlier that year, and two females from Whirligig Lake, along with six males. Graf personally spawned the auroras. Half were raised in water 7 degrees warmer than the hatchery's natural 50-degree water. The warm-water auroras outgrew the control group and survived; all of the auroras in the control group died. That's about as close as it can come to the complete annihilation of a unique population of fish. What's more startling is that from this small number, just nine fish, and the limited gene pool, all of today's aurora trout are descended.

## WHAT KIND OF FISH IS IT?

Fish taxonomy in 1925 lacked the sophisticated investigative tools of today, but Dr. Henn made as good a classification of the aurora as was then possible. He did keep it in the char family, of which brook trout are members, but married it too closely to Arctic char. In the late 1920s, biologists began to question Dr. Henn's classification of the aurora trout.

In 1928, H. H. MacKay, an Ontario biologist, began looking at the two trout. He concluded that aurora and brook trout had several morphological charac-



*Inco smeltery stacks belching pollutants.*



*Female aurora in full spawning colors.*

teristics in common: size; blunt snout; shape of the maxillary; truncated caudal fin; ten rays in the dorsal fin, nine in the anal fin; numerous, fine scales; similar numbers of pyloric caeca; a vomer without a long, raised crest; vomerine teeth confined to the head of the bone, and strong teeth on the tongue and dentary; and a milk-white border on the leading edge of the lower fins backed up with a thin, black stripe.

He found aurora differed from brook trout in the absence of the wormlike vermiculations or marbled lines across the back, which in brook trout extend into the dorsal and caudal fins. The coloration also differed. The red spots with blue halos characteristic of brook trout were replaced by a blue or purplish sheen, more or less uniformly distributed over the body. Some exhibited one or two red spots with blue halo when in their spawning livery.

As to the aurora being a new species, MacKay speculated that if eggs were taken from a single female trout and fertilized, the resulting individuals would vary among themselves, even if they were reared under similar conditions. Greater variation would be shown if different individuals were reared under widely differing conditions. Different sizes, forms, color, and markings are not sufficient to justify classifying a fish as a separate species if these changes are the result of the conditions under which the fish develop. But if differences in size, form, color, and markings are coupled with tendencies to occupy different habitats, choose different foods, or breed in different places at different times, classification as a separate species is war-

ranted. (Today, we know that even these are not enough to define a new species.)

In 1929, MacKay communicated with Dr. William C. Kendall—the dean of American taxonomists at that time and employed by the U.S. Department of Commerce's Bureau of Commercial Fisheries in Freeport, Maine—concerning the validity of classifying the char described by Henn and Rinckenbach as a separate species.

Kendall replied: "In reference to your inquiry concerning the charr described and named by Henn and Rinckenbach, I cannot give any definite information concerning its validity, not having seen a specimen. I have received the description to which you refer, and judge that the fish is similar to, if not identical with, the

charr of Monadnock Lake (Dublin Pond), New Hampshire."<sup>3</sup>

This was an error on Kendall's part. The Dublin Pond trout was described in 1885 as a new species of *Salvelinus* and given the specific name *S. agassizii* (Garman). Upon examining several specimens in 1967, Dr. Robert J. Behnke, the eminent American taxonomist, decided it had evolved from the brook trout. The silver trout (*Salvelinus agassizii*), as it was properly known, is now extinct. Kendall wrote:

This I regard as a valid species. There is another which occurs or did occur in a small lake in western New Hampshire which is very similar to it but different in some small details. I have thought to describe it as a "new" species but have not yet done so. Again, there is one which occurs in a lake in Maine, also very similar in its characteristics.

These three resemble the *S. fontinalis* in some respects and the *S. alpinus* forms in others but, to me, seem to be neither one nor the other. I regard them as intermediate forms between the ancestral charr from which *S. fontinalis* diverged and *S. alpinus*. Therefore, not being derived from *S. fontinalis* and not integrating from it to some other form, they are not to be regarded as subspecies or varieties of *S. fontinalis*. If this is so, the question is, is each of these four "intermediates" a distinct species or are they all the same species? If the latter is the case, they should bear the name of *Salvelinus agassizii*. If they are distinct, then *S. timagamiensis* should stand. All depends upon what we consider as constituting a species.

I suspect that more of this style of fish have been caught in other places and regarded as variants of *S. fontinalis*, particularly in Canada.<sup>4</sup>

Kendall's assessment of MacKay's trout did little to help MacKay or others



*Male aurora trout in spawning regalia.*



concerned with the aurora's taxonomy. For a while, the fish continued to remain a dilemma for biologists trying to find its correct niche. The answer, however, had to wait until scientific techniques advanced. Even to this day, there is no total agreement.

Disregarding coloration, aurora trout look exactly like brook trout in all physical characteristics but one, which cannot be outwardly seen. The aurora has a thicker skin, and the skin is impregnated with far more mucous glands than brook trout. There are behavioral differences, and to some taxonomists, this is a basis for species or subspecies status. Aurora trout don't inhabit streams but prefer lake environments. They like deeper and cooler water than brook trout and feed regularly on the surface only in early spring, late fall, or diurnally just before sunrise and after sunset. Aurora do not spawn in streams but in lakes, at upwellings. Of the two original bodies of water, only Whitepine Lake offered brook trout both inlet and outlet streams and spring holes in the lake in which to spawn. Auroras here took to lake upwellings for spawning. It is the only lake of which we know where they cohabited. There is one characteristic unique to auroras that is easily proven to be genetically based: the color aspect, the aurora's most salient feature. Brook trout in streams that have access to large bodies of fresh water or the ocean undergo a color change when they leave the streams. When they return, their coloration reappears. However, when aurora trout were taken from the lakes and confined in stream environments, they retained their typical coloration. Thus, color is a permanent, genetically driven characteristic that doesn't change with the environment.

### THE CHALLENGE!

The first challenge to Dr. Henn's classification of the aurora trout came in 1939 with the completion of University of Toronto graduate student W. R. Martin's master's thesis, *The Arctic Char[r] of North America*. Even before its publication, most taxonomists believed the aurora was closely related to brook trout. Martin showed, through meristics, that

the aurora trout was identical to the brook trout in body proportions and distinct from the marine Arctic char or any of its landlocked derivatives to which it had early been coupled. The mean values for the relationships between head measurements and standard length corresponded almost exactly with the mean values of these measurements for brook



*The author on Semple Lake.*

trout. Divergence from the Arctic char mean was large in all measurements and especially marked in the length of the maxillary. Martin thus based his challenge on a series of body measurements and believed that at most it was a subspecies of *S. fontinalis* and not a separate species.

Henn, and subsequently contemporaries, did miss a point that should have cast some doubt on his classification of the aurora. He and Rinkenbach reported that all of the smaller specimens of aurora trout taken by them were infected by a parasitic copepod, *Salmincola edwardsii*. This parasite is widespread in trout waters of North America and Europe, including many trout waters in northern Ontario. It was common in northern brook trout hatcheries. The point here, in connection with the discussion of the validity of classifying aurora trout as a separate species, is that the parasitic copepod is specific only to brook trout.

Everyone took a shot at identifying the aurora trout's lineage, even Vadim Vladykov, the eminent Canadian biologist. In his 1954 report on taxonomic studies of the North American char (*Salvelinus* and *Cristivomer*), he came closest to the truth and regarded aurora trout (*Salvelinus timagamiensis*) as merely a color phase of the common brook trout.

But by 1967, there were far better ways of determining fish relationships. P. F. Sale, a Canadian biologist, reexamined the aurora trout. By the use of electrophoresis of the trout's enzymes, he demonstrated that it was closely allied to *Salvelinus fontinalis*. He suggested it be considered a subspecies, *S.f. timagamiensis*. Unfortunately, the stock was so decimated by the late 1950s that by 1973, when W. B. Scott and E. J. Crossman wrote their monumental work, *Freshwater Fishes of Canada*, it was considered extinct. Because of this, further work, unless from museum specimens, cannot be conducted.

However, in 1980, J. M. McGlade, in her doctoral thesis, concluded that the aurora trout is not sufficiently distinguished from other brook trout populations to constitute subspecies status.<sup>5</sup> Robert J. Behnke, in that same year, examined aurora specimens and in reviewing their status stated, "The genetic difference between aurora and brook trout was slight, but was sufficient to retain reproductive isolation in sympatry under original conditions."<sup>6</sup>

In 1981, McGlade supported her earlier statement with electrophoretic results and stated that DNA analyses cannot distinguish between aurora and brook trout. "This doesn't mean that there are no important genetic differences," she said, "only that the measured genetic divergence is not sufficient to justify classifying the aurora trout as a subspecies. Based on available evidence, it is most accurate to refer to the aurora trout as a unique genetic stock of brook trout that is distinguished by its coloration."<sup>7</sup>

### EXPANDING THE RANGE OF THE AURORA TROUT

Ever since Paul Graf was successful in culturing aurora trout in the hatchery, they've been on the comeback trail. Experimental plantings were made in the fall of 1958 in Reed Lake with similar result, even though some fish grew to 6 pounds. To spread distribution, auroras were stocked in Wynn, Lizard, Alexander, Pallet, Young, Claire, Carol, and Big Club lakes as holding populations. By 1983, nearly 70,000 hatchery-raised aurora fry had been planted. A big boost was given the fish when, in 1982, the first of two ten-



*Sunrise on Semple Lake.*

year management plans was initiated by OMNR. The program had three facets: the establishment of a hatchery stock, the reclamation of its original habitat, and the expansion of additional habitat to insure the fish's survival. The second program called also for reestablishment of an aurora trout sportfishery.

Continued pressure on the mining industry to clean up their emissions began to have an effect on the milieu immediately surrounding the smelters, as well as downwind environments. The reestablishment program, however, was ahead of the acid rain cleanup, and when pH levels again rose in several lakes after being stocked with auroras, liming was needed to bring them to levels where the fish could survive. Even as late as 1988, Whirligig Lake was too acidic, so a liming program was started. The following year, aurora were reintroduced, and a few years later, natural reproduction was detected. Whitepine wasn't stocked until 1994. The following year its acidity was

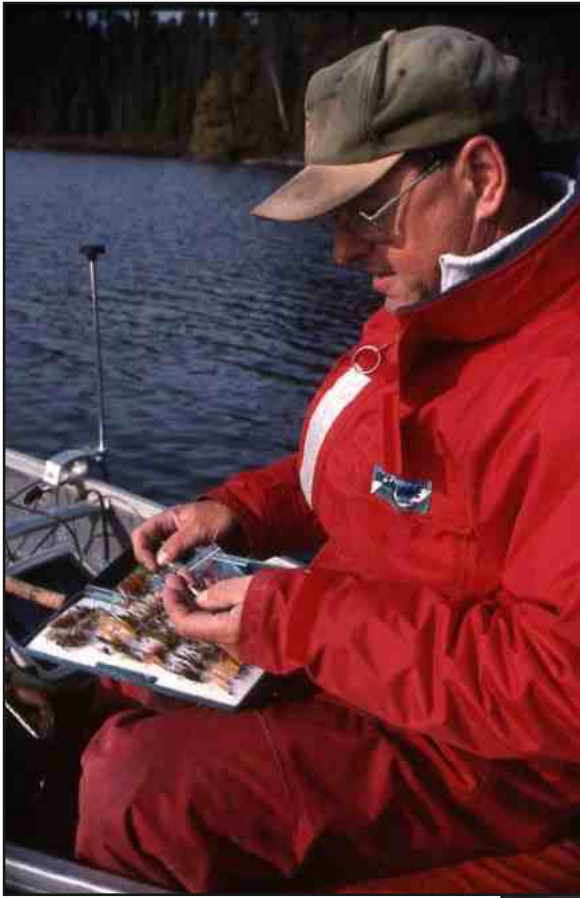
detected to have increased, and both Whitepine and Whirligig were again relimed. "The Inco smeltery had not totally cleaned up its act," said Larry Sorochan, who works for a mining company in Timmins. "Alarms detecting high-pollution emissions in my company still go off quite regularly. It isn't from my company's operation, but what the wind carries to Timmins from Sudbury."<sup>8</sup>

### SPORTFISHING AGAIN

The OMNR has evolved a unique sportfishing program since the first experimental stockings. By 1983, Wynn Lake was open to recreational fishing for the first time. Fishing today is not allowed in the original lakes nor on two lakes that have been set aside as sanctuaries. The latter two are the source of hatchery stock. Today, more than a dozen ponds or lakelets are involved in the recreational program. However, not

all are open to fishing every year. Seasons are open for only one year in every three years. The opening follows a stocking of that lake by three years. Stocking is necessary because these lakes have no natural reproduction. Auroras can grow big; the largest so far is 7.5 pounds.

Nine ponds and lakelets—Reed, Pallet, Wynn, Big Club, Semple Lake (No. 54), Liberty, Borealis, Carol, and Nayowin—are in this program. Only two or three are open in any one year. Currently, the season is August 1 to October 15. The daily and possession limit for aurora trout is one fish if you buy a regular license, either resident or nonresident. If you buy a conservation license, which is half price, the creel limit for most fish is half the regular limit. In the case of aurora trout, it is zero. Like brook trout, aurora trout feed best at daybreak and just after sunset until dark. In the fall, they rise to within 20 or so feet of the surface. Sorochan, who describes himself as a northerner content to fish away



An avid fly tyer, Larry Sorochan struggles with his choice.



Larry Sorochan on Semple Lake.

from the madding crowd, is probably the aurora trout's most apt angler. He has fished for them since the first sportfishing season was opened. A dedicated fly fisherman and fly tyer, he has even taken them on the surface with dry flies. His most successful technique, however, is to troll for them, Rangeley Lakes (Maine) style, using a fly rod and streamers. His most productive pattern has been the Mickey Finn, but he is always changing flies. He has a brilliantly colored, 4-pound, fall female on his wall, taken several years ago.

"I don't have to kill another aurora," he said, "I have my wall mount and another one, a framed watercolor of an aurora by a local artist. It's a one-of-a-kind painting, just like the fish itself."<sup>9</sup>

Sorochan trolls from a 12-foot canoe pushed by an electric outboard. Most other anglers troll, or even row, dragging a Christmas Tree rig—a series of flashers—ahead of the spoon. It's the same rig that evolved more than a hundred years

ago on New York's Finger Lakes for taking lake trout when the fish were deep. Only one rod per angler is allowed in Ontario when trolling.

Fortunately, like most fairy tales, the tail of this story has a happy ending. However, if it wasn't for the dedication of a great number of people—sportsmen, biologists, politicians, and even industrialists—this unique quirk of nature might have gone undiscovered and undetected, extinguished before it ever came to light. It's amazing what people can achieve when they put their minds to a problem.

#### ENDNOTES

1. Charles Sheppard, "Aurora Trout: Escape from Extinction," *Ontario Out of Doors* (August 1998), 22–24.
2. Personal communication, 4 October 1998.

3. Quoted in H. H. MacKay, *Fishes of Ontario* (Toronto: Ontario Department of Lands and Forests and Bryant Press, Ltd., 1963), 113–117.

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5. J. M. McGlade, "Genotypic and Phenotypic Variation in Brook Trout" (doctoral thesis, University of Guelph, 1980).

6. R. J. Behnke, "A Systematic Review of the Genus *Salvelinus*." In E. K. Balon, ed., *Chars: Salmonid Fishes of the Genus Salvelinus* (The Hague: W. Junk Publishers, 1980), 13.

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9. Personal communication, 4 October 1998.



# The New Gold Rush: Celebrating and Protecting the California Golden Trout in the Southern Sierra Nevada

*by David Finkel*

*Photos by R. Valentine Atkinson*



*A California golden trout fresh from Golden Trout Creek.*

**M**ILLENNIA BEFORE STARRY-EYED Forty-Niners began their journey to California, visions of gold-laden streams foremost in their minds, a descendant of a primeval sea-run trout was nosing its way up the inland waters of the Pacific coast and into the mountainous regions of the southern Sierra Nevada. These ancient rainbow trout migrated up the wild Kern River and dispersed into its tributaries dur-

ing the Pleistocene epoch, some one hundred thousand years ago. Glaciation and other natural geologic phenomena eliminated many of these ancestral fish populations and created impassable barriers, isolating surviving trout communities.

This isolation resulted in the unique and independent evolution of the California golden trout (*Oncorhynchus mykiss aguabonita*) in Golden Trout Creek and the South Fork of the



*Above: The brilliant coloration of California's state fish.*

*Left: The author displays a larger-than-average golden trout.*



Kern River, two small and distinct waters in the northernmost portion of the Kern River drainage. In the mid-nineteenth century, when throngs of gold seekers did finally set foot on California soil, golden trout had evolved into “one of the most beautiful fish that swims”<sup>1</sup> and embodied a natural bounty in California’s waters.

In 1903, President Theodore Roosevelt sent Barton Warren Evermann, a naturalist for the U.S. Fish Commission (the predecessor to the U.S. Fish and Wildlife Service), to the Kern River drainage for the express purpose of reporting on these gold-colored trout. In Golden Trout Creek, Evermann found a fish never before scientifically described. He was dazzled by the goldens, and wrote “this is the most beautiful of all the trouts: the brilliancy and richness of its coloration is



*Above: The bright volcanic substrate of Golden Trout Creek.*

*Left: Fiery reds and oranges beneath Golden Trout Creek's gin-clear water.*



not equaled in any other known species; the delicate golden olive of the head, back, and upper part of the side, the clear golden yellow along and below the lateral line, and the marvelously rich cadmium of the under parts fully entitle this species to be known above all others as the golden trout.”<sup>2</sup>

The explanation for the luminous beauty that Evermann described has been the subject of debate. The most popular theory posits that golden trout evolved to match the volcanic substrates of their natal waters. The streambeds of Golden Trout Creek (previously Volcano Creek) and the South Fork of the Kern River are composed of colored granite rocks in vivid oranges, yellows, and reds—goldens effortlessly camouflage to these fiery substrates. In this vein, author Stewart Edward White noted “they swam slowly against the current, delicate as liquid shadows, as though the clear uniform golden color of the bottom had clouded slightly to produce these tenuous ghostly forms.”<sup>3</sup>

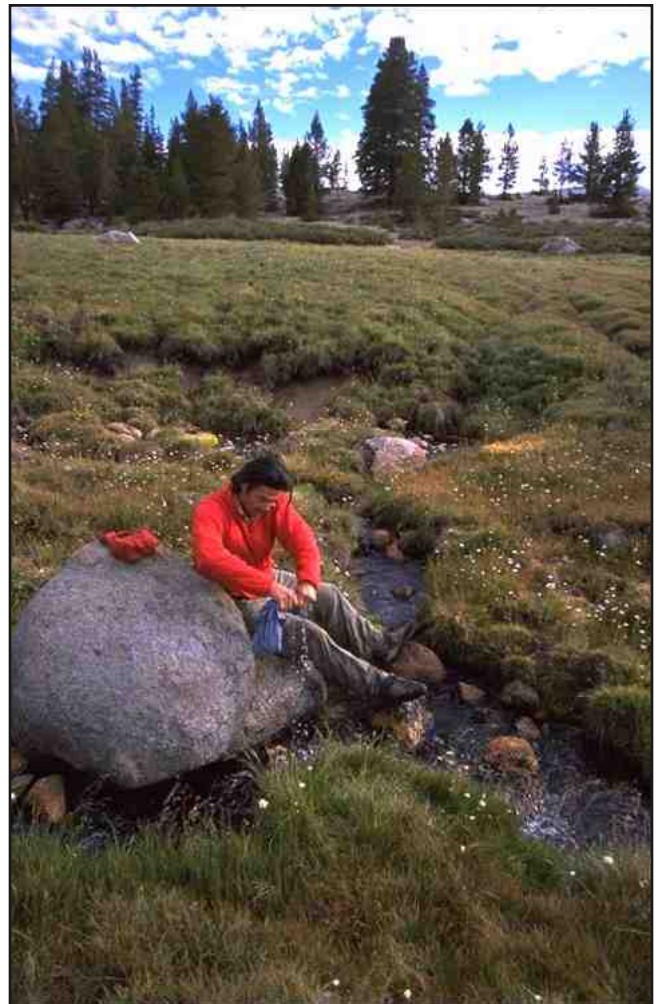


*Above: Big Whitney Meadow from Cottonwood Pass.*

*Right: Cooling off at a groundwater spring near Big Whitney Meadow.*

Others speculate that the bright colors aid golden trout in recognizing each other during spawning or in establishing territorial limits—an inherent characteristic of many resident and anadromous salmonids during spawning. Another theory suggests exposure to ultraviolet light in high-elevation streams played a role in golden trout coloration. Whether it was one or a combination of these elements, the mesmerizing beauty of the fish has not gone unnoticed.

The California golden trout was designated California state fish in 1947. Additionally, the 300,000-acre Golden Trout Wilderness was created in 1978 to help preserve the trout and its native habitat. Two other close relatives of the California golden trout, also native to the Kern River drainage, were beneficiaries of the wilderness designation: the Little Kern golden trout and the Kern River rainbow trout. But despite these safeguards, Evermann's prescient belief that "the golden trout cannot long remain so unless afforded some protection"<sup>4</sup> has become alarmingly accurate.



The plight of the golden trout began one hundred and forty years ago when livestock were introduced into the high-elevation meadows of the Kern Plateau, where the growing season is short and the ecosystem is fragile. Historic and present-day grazing along sensitive stream channels affects aquatic habitat by reducing vegetation and can widen and collapse crucial stream banks that goldens depend on for shelter. Cattle grazing also reduces native vegetation and increases in-stream sediment, all to the detriment of golden trout. Additionally, grazing can change the width/depth ratio of a stream, which adds redd-choking sediment to the channel, and can lower the water table, which can have a deleterious impact on native plants.

The consequences of habitat degradation in the golden trout's high-elevation environs have been exacerbated by nonnative trout introductions. Descendants of stocked rainbow and brook trout coupled with unauthorized brown trout introductions in the golden's home waters have resulted in hybridization, predation, and competition. The ongoing hybridiza-



*Right: Twisted forms of lodgepole and foxtail pines.*

*Below: The entrance to the Golden Trout Wilderness at Horseshoe Meadows.*







tion is compromising the golden trout's genetic integrity, and nonnative fish prey on goldens and compete with them for the limited resources in their high-elevation streams. Finally, many introduced trout grow faster and mature sooner than goldens, and because brown and brook trout spawn in the fall, their young get a head start on the progeny of the spring-spawning goldens.

In response to the threats, conservation organizations California Trout (CalTrout) and Trout Unlimited (TU) applied for and received an Orvis Conservation Grant in 2004 to help protect and restore pure strains of California golden trout. The cooperative venture was called the Golden Trout Project. Generous contributions from the public were matched by the Orvis Company and the National Fish and Wildlife Foundation (NFWF) and exceeded the project's \$90,000 goal. These monies enabled CalTrout and TU to collaborate on conservation efforts with the California Department of Fish and Game,

*Left: A chilly end to a morning's fishing on Golden Trout Creek.*

*Below: Stoking an early-morning fire at camp overlooking Big Whitney Meadow.*





*Above: Christy McGuire (right), a biologist for the California Department of Fish and Game, pinpoints a sampling destination in the Golden Trout Wilderness for a volunteer.*

*Right: Students get acquainted with a Global Positioning System (GPS) unit during a volunteer training session at Blackrock Saddle Trailhead.*

the U.S. Forest Service, and the U.S. Fish and Wildlife Service to reestablish pure genetic strains of golden trout to their native waters in Golden Trout Creek and the South Fork of the Kern River.

Included in the Golden Trout Project were habitat improvements, nonnative fish removal, and the production and distribution of education materials to the public. Hundreds of volunteers pitched in on a variety of conservation activities that included erecting exclusion fences to keep livestock out of sensitive riparian areas, planting native willows to stabilize degraded stream banks, and using electrofishing techniques to remove the nonnative brown trout that feast on goldens.

At the heart of the project was tissue collection for genetic analysis; locating genetically pure strains of golden trout is integral to the future success of golden





*Above: Golden Trout Creek and  
Big Whitney Meadow.*

*Left: Strategizing above Big Whitney Meadow.*



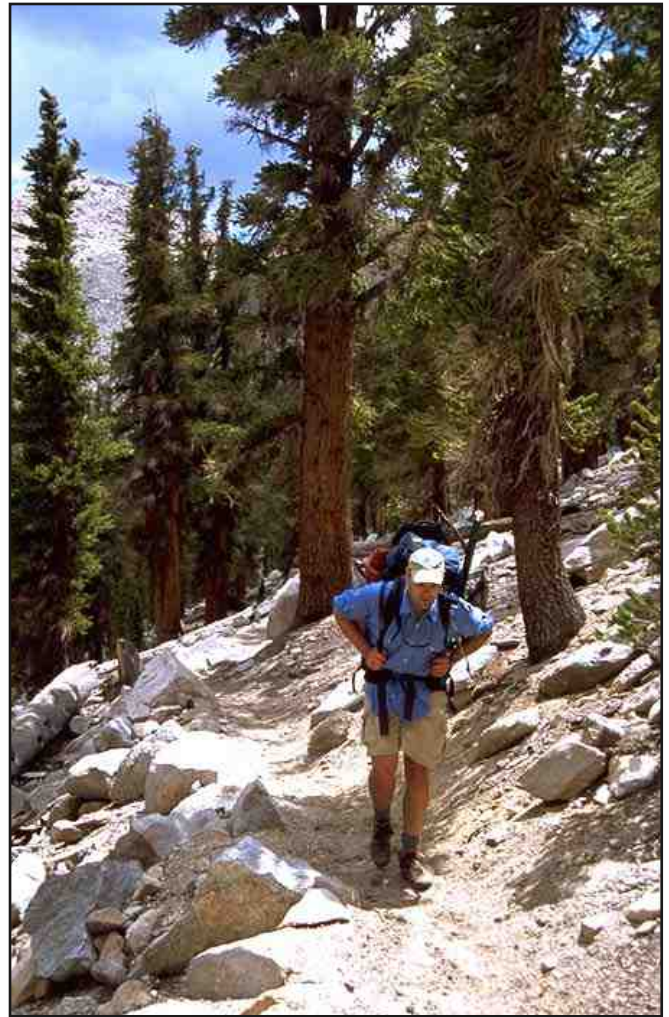
trout conservation work. Volunteers attended training workshops where they learned protocols for collecting tissue samples, recording data, and wilderness orientation and basic first aid. After the trainings, volunteers chose from a list of remote locations in the Golden Trout Wilderness and the Sequoia National Forest to seek out populations of California golden trout.

One such location was Evermann's destination one hundred years ago, the evolutionary birthplace of the golden trout: Golden Trout Creek and Big Whitney Meadow. In August 2004, I had the opportunity to lead a four-man sampling team to this storied place. Valentine Atkinson, renowned fly-fishing photographer, was with us and intent on capturing an image

that would illustrate the golden trout's acclaimed beauty—a feat that has historically been difficult to achieve.

The dearth of estimable golden trout photographs has been due in part to their far-flung home waters. Ensnared deep in the Sierra Nevada Range and south of Mt. Whitney, the highest peak in the contiguous United States, the headwaters of Golden Trout Creek originate from Chicken Spring, Johnson, and Rocky Basin lakes, all higher than 10,000 feet. Golden Trout Creek emerges at the confluence of these three stringers and continues through an expansive meadow, Big Whitney, flush with sedge grass, willows, and sagebrush.

The closest access to this Sierra Shangri-la begins at Horseshoe Meadows, near Lone Pine, on the east side



*Right: The granite trail to Cottonwood Pass in the southern Sierra Nevada.*

*Below: Golden Trout Creek below the confluence of its headwater streams.*





of the Sierra Nevada. The first view of verdant Big Whitney Meadow comes at 11,000 feet after a steady climb over Cottonwood Pass, in the company of lodgepole and foxtail pines, with granite peaks spiraling overhead. Once over the pass, the trail languidly winds down into the meadow where, in the summertime, an infinity of grasshoppers, frenetic and abuzz, blur the montane landscape.

Miscalculating grasshoppers plop into Golden Trout Creek, where they are devoured by a lightning-fast white maw and a flash of gold and crimson. We learned quickly, hoppers notwithstanding, that a golden trout will break the surface for any dry-fly variety. The golden trout were ubiquitous in the creek, aiding our tissue collection work and Val's indefatigable pursuit of getting the perfect shot. The pictures on these pages are evidence of his success.

*Left: Staying low for the perfect cast.*

*Below: Dapping a terrestrial in swift water.*





*Above: Measuring a golden trout.*



*Left: Taking a tissue sample for genetic analysis.*

Along with the samples we took from Golden Trout Creek, several other volunteer groups ascended thousands of vertical feet, fished for trout, took tissue samples (fin clips), photographed and measured fish, and then returned them to their streams unharmed. These fin clips are being analyzed for their DNA content, which will help toward a better understanding of the genetic composition and geographic distribution of remaining populations of California golden trout. Ultimately, the tissue samples will provide crucial genetic information that is needed for population restoration efforts and management decisions.

Many Gold Rushers never found the ingots they so desperately sought. Oftentimes, California's wild creeks hid the coveted bounty from the hordes. But now, as then, golden hues on an ancient fish flash brightly in Golden Trout Creek and the South Fork of the Kern River, high in the southern Sierra Nevada. With the success of the Golden Trout Project and continuing efforts by conservation partners and dedicated volunteers, there is much optimism surrounding the protection and restoration of genetically pure populations of California golden trout in their native waters.



*Above: California's other natural golden treasure.*

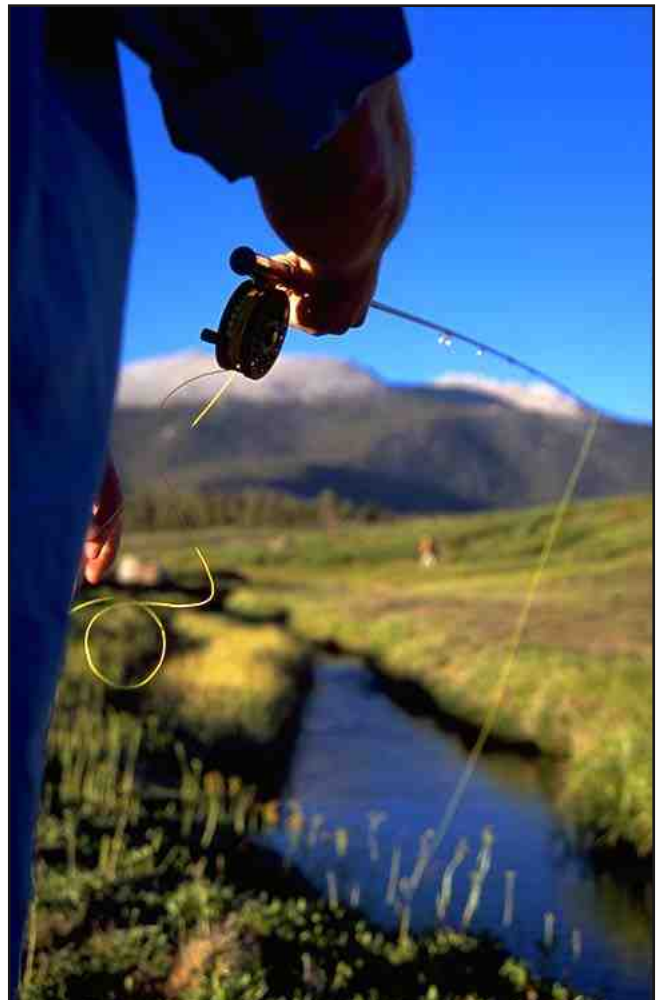
*Right: Making the final cast on Golden Trout Creek as dusk approaches.*

If this positive conservation trend continues, it is not hard to imagine a new Gold Rush of sorts, one for which it would be best to heed White's words: "I doubt if you will ever be able to gain a very clear idea of [a golden trout's beauty] unless you take to the trail that leads up, under the end of which is known technically as the High Sierras."<sup>5</sup>



#### ENDNOTES

1. Stewart Edward White, *The Mountains* (New York: McClure, Phillips & Company, 1904), 257.
2. Barton Warren Evermann, "The Golden Trout of the Southern High Sierras," *Bulletin of the Bureau of Fisheries*, vol. 25, 1905, 28.
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4. Evermann, "The Golden Trout," 28.
5. White, *The Mountains*, 257.



# Henryville, Pennsylvania, on the Brodhead

by Stephen Sloan



From Thomas Sedgwick Steele, *Canoe & Camera*  
(New York: Orange Judd Company, 1880), 103.

**EDITOR'S NOTE:** Stephen Sloan's book, *Thanatopfish: An Ocean Odyssey*, was published in 2004 by Meadow Run Press. In the introduction, Sloan writes: "I have requested that two-thirds of my ashes be deposited in the Atlantic Ocean off Montauk, on the eastern side of Long Island, New York. Equal parts are to be cast on slack water just before a spring flood tide and on a spring ebb tide because these tides have the strongest pulls. I've asked that the remaining one-third of my ashes be deposited at Henryville, Pennsylvania, on Brodhead Creek. From there, they will flow downstream to the Delaware River, and then to the Atlantic Ocean." *Thanatopfish* follows the journey of his ashes and what they see in the waters as they make their way. Stephen Sloan died on April 28.

I HAD ARRANGED WITH Harold Transuc, the riverkeeper at the Henryville Conservation Club on Brodhead Creek, to deposit my ashes in my favorite trout-fishing holes. I'd fished these waters since 1964. I instructed Harold to do this by putting his share of my ashes into a small plastic bag, making a small hole in it, and then putting the bag in a pants pocket that also had a hole. As he dutifully patrolled the stream, he would gently shake his leg and sprinkle me into the water.

Harold's first stop was the Ledge Pool, renamed the Einstein Pool by my son Robert. The trout there are just too

smart to catch, he informed me one frustrating day. The portion of me that Harold shook into the Ledge Pool drifted downstream and through the Pine Tree Pool, then over the cascade of the Dam Pool and into Upper and Lower Twin Pools. I looked behind the large rock in Lower Twin where I once enticed a 22-inch brown to take a Prince Nymph on a beautiful June twenty-first, my birthday. To my amazement, a fish of similar size was still there, holding in the current.

The Iron Bridge Pool under Route 447 was next. I swept past the bridge embankment on the downstream side and

saw many trout holding just inside the shadow of the bridge. I picked up speed at the end of the pool and flew down the riffles to the slower water of the Buttonwood Pool. Here lived some pretty savvy trout. I had caught many of them over the years by using 7x and 8x leaders and tiny size 22 or 24 ants or beetles.

The water turned colder as I drifted through the Buttonwood Pool. It was chilled by springs under the tree-lined side, opposite the bench on the other bank where I spent many hours observing the trout as they took insects undetectable to my eyes. These pleasant memories cheered the new me, and my



discovery of the springs only added to my understanding of the stream that I had observed with awe all these many years.

Next stop was the Slide Pool. This darkly shaded, mysterious, hemlock-guarded piece of water had beaten me time after time. Over the course of three-decades, I had managed to take only three trout from its baffling waters. The Slide Pool always held promise on a hot day, but fishing there almost never produced results worthy of the effort. Now, as I drifted through its darker depths, I saw the shadow of something rather large and very much alive. It moved through the water with hydrodynamic ease, undulating its body as it swam gracefully up through the current. It was a medium-sized otter. In my new life as a speck of ash, I solved the mystery of the Slide Pool. I had the same trouble as Izaak Walton: otters. I watched the otter turn on his side and catch an 8-inch trout. I knew this to be a wild fish because the club never stocked trout smaller than 12 inches. I hoped now that Harold would set one of his traps during the winter and relocate this otter from its feeding grounds to other waters far from Henryville. I continued my journey downstream, much enlightened.

I swirled in the eddy under Harold's Bridge. It was March, cold and damp, the air laced with the promise of a wet snowfall, but there on the bottom, just on the shallow side of the current, were some old friends: fat 22- to 26-inch trout, their markings bright even in the early spring. Harold's weekly supply of pellets had kept them strong and healthy. Every now and then, a nearly imperceptible flash of white showed between a trout's jaws as it devoured a stonefly nymph drifting in the current. I swirled in the current and watched the fish.

Harold had continued downstream on his rounds, and he now threw some pellets into the stream from a shoreline rock above the bridge. Then he shook his pants leg, and more of my ashes shared the current with the trout food. Big brown trout flashed all around me, feeding on the high-protein pellets, each of which held the dietary equivalent of 5,000 caddisflies or 10,000 hatching blue-winged olives.

I felt myself going downstream past the Elbow Pool, past the Brodhead Club's water, rushing in the spring flood past Anomink as the Brodhead tumbled under Route 80, past the power plant, and into the big eddy by the Delaware Water Gap. I bade farewell to Henryville, grateful that it had provided me with peace and sanctuary during my previous existence. Fishing is the greatest

elixir and best reducer of psychiatry bills known to mankind.

The spring flood carried me down the Delaware River to Lambertville, New Jersey, where my journey was temporarily stalled when I got hung up on the protruding limb of a fallen tree. There I was, high and dry for a period of time. I began to notice silver flashes in the water and purple flowers blooming on the banks. The flashes soon intensified and became like thousands of mirrors reflecting sunlight off one another. It was the annual shad run.

A light spring rain washed me off the tree, and I rushed downstream past millions of migrating shad going the other way. Soon, my nose told me that I was approaching Philadelphia. Mercifully, another spring rain raised the river almost to flood level, and I shot past the City of Brotherly Love and unlovable pollution. Benjamin Franklin started the first municipal garbage collection system in Philadelphia. Unfortunately, there has been little follow-through.

The current slowed as I approached the mouth of the river. I entered the bay and drifted past Lewes, Delaware, site of a former menhaden-processing factory. Having retained a keen olfactory sense (maybe the new me was a speck of my old nose), I detected a slight odor of bunker still oozing from the banks and mixing with the smells from the mouth of the mighty Delaware.

The strong current began carrying me offshore. I saw several boats trolling for striped bass and many fishing for black drum, a favorite in this area.

After a long time, I began to feel a temperature change. The water warmed up, and it turned a distinct shade of cobalt blue. I was in the Gulf Stream, the mighty current that moves north through the Atlantic Ocean. (It was first mapped by Benjamin Franklin, who was the first in many things.) I almost got hung up on one of the hundreds of lobster buoys along the hundred-fathom curve. But the current swept northward and began to pick up speed.

At the same time, other specks of the former me were drifting seaward. Eventually, we all met in a large blue-water back eddy that had broken away from the main Gulf Stream near Oceanographers Canyon, that long, deep cleft that splits the continental shelf from just off Cape Cod to the shelf's southeastern edge. Before then, though, my Long Island ashes had some more adventures of their own.

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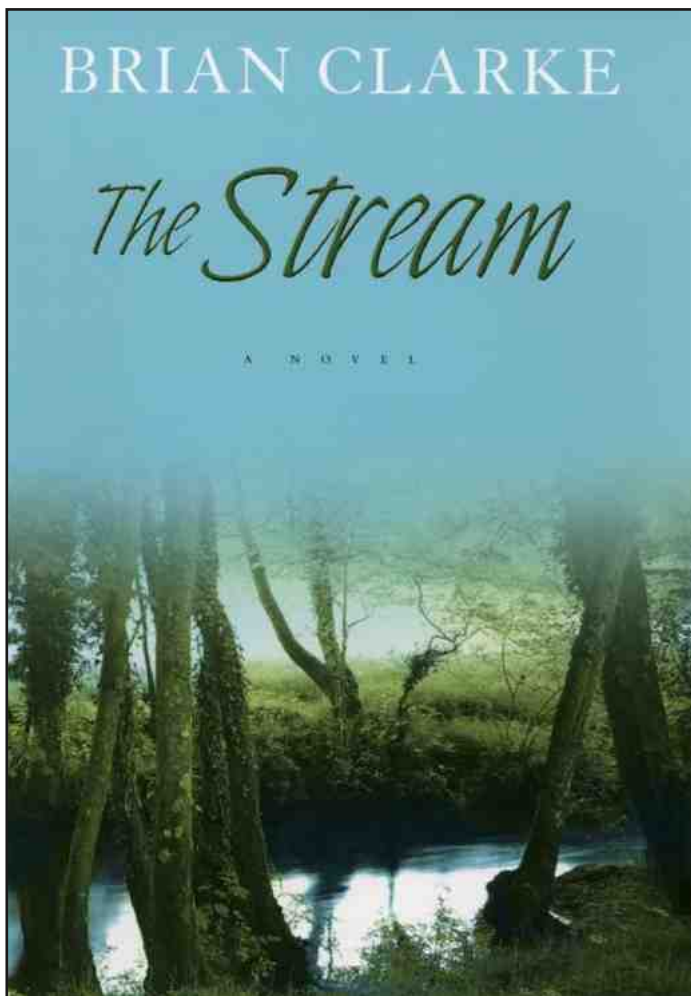


"The Uncaged Woman"



## Brian Clarke's *The Stream*

by G. William Fowler



edge and experience of stream life to create a novel that brings together the conflicts between nature and man's insatiable need for economic development, which results in unknown and unintended consequences.

The book was first printed in England in 2000 and won the Natural World Book Prize, which is Britain's highest environmental literary award. Clarke also won the Best First Novel award from the Author's Club. In 2004, the Overlook Press printed the first American edition.

At first, *The Stream* appears to be an "environmental" novel that will move you to join the Wild Trout Trust, Trout Unlimited, or another cold-water conservation organization, but it contributes to one's understanding of nature and human behavior on other levels. Although there is nothing about fishing in the book, Clarke has written a beautiful tribute to trout and their struggle for life that will appeal to any angler. Mr. Clarke has used the life of a stream to weave together the life cycle of a trout from inception to death. Clarke explains how a trout is born, lives, and is threatened by its natural and unnatural enemies, including man himself, and then ultimately dies.

From a personal perspective, *The Stream* helped me understand how economic development has intruded upon my passion for trout fishing. I see more clearly how events fit together and how the adverse consequences of development go unnoticed. More importantly, Clarke has shown me who the real villains are, and they are not the politicians and big businessmen as I once thought. Clarke makes me wonder: if we are truly at the top of the food chain and God gave us free will, do we have the right to disrupt the law of continuing by destroying a stream and the life it supports in the name of progress?



*G. William Fowler is an attorney from Odessa, Texas, a lifelong fisherman, and has contributed several articles to this journal.*

**T**HE STREAM BY Brian Clarke is a must-read for any fly fisher involved in the environmental debate. Regardless of which side you are on, Clarke tells it like it is, setting out in clear, yet poetic, language the story of a small valley stream in rural England and how a government-backed industrial development affects everything from the insect life that provides food for fish to the people who live in the area.

In the beginning, the stream is perfect, as God made it and everything is in accordance with "the law of continuing, the law that governed all things" (p. 9). Because of low employment, the government decides to support an industrial park in a rural valley. Clarke describes the many changes as construction proceeds, the efforts of conservationists to stop the work, and how the countryside, the wildlife, and the people are affected.

Brian Clarke is well suited to tell this story. President of England's the Wild Trout Trust, a lifelong fly fisherman, noted author on trout behavior (*The Trout and the Fly*), and specialist writer for the *Times* on fish, fishing, and the environment, Clarke shares his knowl-

Brian Clarke, *The Stream* (Woodstock, N.Y.: Overlook Press, 2004). Hardcover, \$23.95. [www.overlookpress.com](http://www.overlookpress.com).

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*From Izaak Walton, The Compleat Angler (London: Henry Kent, 1759), facing page 215.*

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# Museum News

Yoshi Akiyama



*Attendees of the Museum's dinner in Cleveland review the array of silent auction items up for bid.*

## Marketing News

Our marketing push is well under way. We have placed ads in *Yankee Magazine's Travel Guide to New England*, *Vermont Life* magazine, our local area guide, and other local programs and playbills. We are listed on the local chamber of commerce website as well as the website for the state of Vermont. By the time you read this, our new website should be up and running.

As this goes to press, we are busy preparing for the Museum's grand opening celebration on June 11, a dream several years in the making. We hope many of you were able to join us for this day-long festival of fly-fishing activities, kid's crafts, and outrageous food. Full coverage of this day will appear in the Fall issue.

## Cleveland Dinner/Auction

We had a terrific outing in Cleveland this year! Dinner Chair Woods King III once again rallied the troops—along with committee members George McCabe, Jim Sanfilippo, and Jeff Wagner—to bring a special evening to attendees. The event was once again held at the extraordinary Chagrin Valley Hunt Club, and our sponsors included Baker & Hostetler LLP and Trustee Kristoph Rollenhagen. Jim Sanfilippo graciously sponsored the table wine.

The evening was a great success for the Museum, and our guests were lively. Auctioneer Scott Mihalic routinely joked with the crowd and coaxed them out of a few of their hard-earned dollars. Donors to the auction included Marion Graven and North Coast Salmon & Steelhead Guide, Mark Kasubick and

River Gillies, Sunnybrook Trout Club, Martin Keane, and Trustee Walter Matia. We thank committee member George McCabe for assisting in the auction.

We would also like to thank the Chagrin Valley Hunt Club; our host at the club, Frank I. Harding; and General Manager James A. Misencik and his very capable staff for a spectacular job of putting forth this event. A special thanks to AnnMarie Kaspy, club staff member, for assisting with checking guests in (and out!). AnnMarie helps us every year with this task, and we are grateful for her assistance. We look forward with much anticipation to next year's event.

## Recent Donations

**Joseph L. Hudson Jr.** of the Fontinalis Club, Detroit, Michigan, donated two Hardy St. George Jr. reels; two Hardy St.

## Upcoming Events

October 27-28

Friends of Peter Corbin Shoot  
New Jersey location TBA

November 12

Napa Valley, California  
Winery Dinner and Sporting  
Auction at Martini Winery

Coming in Fall 2005:

Hartford and Philadelphia Dinner  
and Sporting Auctions, locations  
and dates to be determined

For information, contact Lori

Pinkowski at (802) 362-3300 or  
via email at amff2@together.net

George Jr. 2 $\frac{1}{2}$ -foot reels with opaque round agate line guides; a Hardy Fly Weight reel with a U-shaped German silver line guide; a J. W. Young Beaudex England early model reel; an Orvis Rocky Mountain 6 $\frac{1}{2}$ -foot, three-piece fly rod no. 17841; a very unusual and early Orvis 8-foot 3/2 fly rod no. 9443; an Orvis Deluxe 6 $\frac{1}{2}$ -foot, 2-ounce 2/1 fly rod no. 17689; and an Orvis Battenkill 7 $\frac{1}{2}$ -foot, 2/2, 3/4-ounce fly rod.

James V. Hardman of Dorset, Vermont, donated a Fenwick glass-bonded 7-foot, two-piece fly rod, model FF70; a British brass salmon reel with a folding crank, circa 1850-1860; an Orvis CFO III disk drag fly reel, no. 1743; a Pflueger Model 1494 Medalist fly reel; four Perrine aluminum fly boxes, circa 1965; two flies tied by Elsie Darbee; two flies tied by Charles

DeFeo; a Chatillon tubular spring scale; a Pflueger Model 1495 Medalist fly reel; a no. 10 Quill Gordon tied by David Brandt; and a Lady Bug tied by Bob Mead.

David Beazley of Bucks, England, donated a cloth-bound, limited edition (one of ten) copy of his *British Angling Prints: A Short Story* (2003).

Adrian A. Bantjes, associate professor of history at the University of Wyoming, Laramie, Wyoming, donated a copy of *Annals of Wyoming: The Wyoming History Journal* (Spring 2004, vol. 76, no. 2), which features Paul Schullery's article, "Their Numbers Are Perfectly Fabulous: Sport, Science, and Persistence in Yellowstone Fishing, 1870."

Donald Barne of Regal Engineering, Orange, Massachusetts, donated one of the original Regal production vises, no. 76, circa 1982, and a Regal vise, patent no. 4322065 and no. 4375284.

Giorgio Dallari of Modena, Italy, donated a reel made of briarwood.

## In the Library

Thanks to the following publishers for their donations of recent titles that have become part of our collection (all titles were published in 2005, unless otherwise noted):

Stackpole Books sent us John Waldman's *100 Weird Ways to Catch Fish*. The Lyons Press sent us Stephen Vletas and Kim Vletas's *The Bahamas* (updated and revised). And Frank Amato Publications, Inc. sent us Jeffrey L. Hatton's *Rod Crafting: A Full-Color Pictorial & Written History from 1843 to 1960*.



From Charles Hallock, *The Fishing Tourist*  
(New York: Harper & Brothers, 1873), 79.

## The American Museum of Fly Fishing

Box 42, Manchester, Vermont 05254  
Tel: (802) 362-3300. Fax: (802) 362-3308

EMAIL: amff@together.net

WEBSITE: www.amff.com

## JOIN!

Membership Dues (per annum)

INDIVIDUAL	
Associate	\$35
Sustaining	\$60
Benefactor	\$125
Patron	\$250
GROUP	
Club	\$50
Trade	\$50

Membership dues include four issues of *The American Fly Fisher*. Please send your payment to the Membership Director and include your mailing address. The Museum is a member of the American Association of Museums, the American Association of State and Local History, the New England Association of Museums, the Vermont Museum and Gallery Alliance, and the International Association of Sports Museums and Halls of Fame. We are a nationally accredited, nonprofit, educational institution chartered under the laws of the state of Vermont.

## SUPPORT!

As an independent, nonprofit institution, the American Museum of Fly Fishing relies on the generosity of public-spirited individuals for substantial support. We ask that you give our museum serious consideration when planning for gifts and bequests.

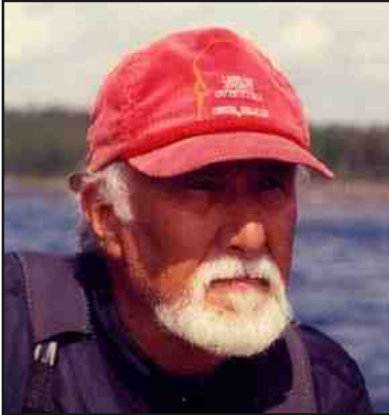
## BACK ISSUES!

Available at \$4 per copy:

- Volume 6, Numbers 2, 3, 4
- Volume 7, Number 3
- Volume 8, Number 3
- Volume 9, Numbers 1, 2, 3
- Volume 10, Number 2
- Volume 11, Numbers 1, 2, 3, 4
- Volume 13, Number 3
- Volume 15, Number 2
- Volume 16, Numbers 1, 2, 3
- Volume 17, Numbers 1, 2, 3
- Volume 18, Numbers 1, 2, 4
- Volume 19, Numbers 1, 2, 3, 4
- Volume 20, Numbers 1, 2, 3, 4
- Volume 21, Numbers 1, 2, 3, 4
- Volume 22, Numbers 1, 2, 3, 4
- Volume 23, Numbers 1, 2, 3, 4
- Volume 24, Number 1
- Volume 25, Numbers 1, 2, 3, 4
- Volume 26, Numbers 1, 2, 4
- Volume 27, Numbers 1, 2, 3, 4
- Volume 28, Numbers 1, 2, 3, 4
- Volume 29, Numbers 1, 2, 3, 4
- Volume 30, Numbers 1, 2, 3
- Volume 31, Numbers 1, 2

## CONTRIBUTORS

Steven L. Karas



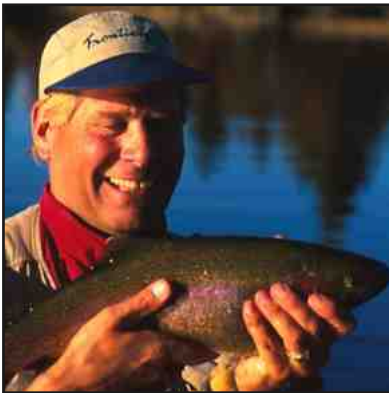
Nick Karas is both an ichthyologist and journalist. He has written a dozen books, more than 500 major magazine pieces, and more than 3,500 newspaper columns. For twenty-five years, Karas was the staff outdoors columnist for *Newsday* (New York). Currently, he is a freelance columnist for the *New York Times* and several major magazines.

His book, *Brook Trout*, exemplifies the culmination of his science background honed by the discipline of a journalist. It was released in 1997 and is now in its second edition. It was recently nominated to be added to the list as one of the ten best books in English angling literature. His classic tome, *The Striped Bass*, is in its third edition.

Benjamin Finkel



David Finkel, California Trout's conservation manager, is based in CalTrout's San Francisco headquarter offices and works to advance the organization's mission to "protect and restore wild trout and steelhead and their waters throughout California" (please visit [www.caltrout.org](http://www.caltrout.org) for more information). In addition to time spent on the Golden Trout Project, David works on CalTrout's programs and campaigns related to California's ten other native resident and anadromous fish species; water flows and hydropower reform; invasive species; and the policy, advocacy, and outreach associated with these issues. A native of the Pacific Northwest, David currently lives in San Francisco and enjoys backpacking and fly fishing in California's wilderness areas and watersheds.



R. Valentine Atkinson is an internationally acclaimed and much published photographer specializing in fly-fishing lifestyle and nature worldwide. His assignments have taken him to twenty-seven countries. He divides his work between advertising, corporate, and editorial photography and is published in most major fishing magazines regularly. He has been the staff photographer for *Frontiers Travel* for fifteen years and operates his own stock photo library with 75,000 images on file.

Val is very proud of his two books, *Distant Waters* and *Trout & Salmon*, as well as being inducted into the California Fly Fishing Hall of Fame by the Northern California Council of the Federation of Fly Fishers. Please visit him on his website at [www.valatkinson.com](http://www.valatkinson.com).

Stephen Sloan, trustee emeritus of the American Museum of Fly Fishing, died April 28. He was chairman of the Fisheries Defense Fund, Inc. and Take a Kid Fishing, Inc. His books include *Fly Fishing Is Spoken Here* (2003) and *Ocean Bankruptcy: World Fisheries on the Brink of Disaster* (2003). He founded "The Fishing Zone" and "EcoZone," the longest-running syndicated fishing radio shows in the country, concerned with fishery, ecological, and conservation issues.

In the early 1980s, Sloan served on the Marine Advisory Fishery Commission, chartered by Congress, as a special advisor to the National Marine Fisheries Service. He became chairman and received a commendation from the United States government for reorganizing the commission. Sloan served on the U.S. delegation to International Commission for the Conservation of Atlantic Tunas and the boards of the International Game Fish Association and the National Coalition for Marine Conservation. He was on the advisory board of Recreational Fishing Alliance and the board of the Center for Fisheries Conservation, a subsidiary of the American Fisheries Society. Over his fishing life, Sloan set forty-four world fishing records. His story, "The Soque Sisters vs. the Foggy Bottom Boys," appeared in the Spring 2005 issue of this journal.



# Many Thanks!

The Grand Opening Committee, the Board of Trustees and the Staff at the American Museum of Fly Fishing would like to thank the following individuals and businesses for supporting our Grand Opening Celebration on June 11, 2005.

Without these exhibitors, who donated their time, knowledge and expertise, the Festival would not have been a success.

**Fly Tyers**  
Bill Chandler  
Jim Clune  
Bill Newcomb

**Rodmakers**  
Jim Becker  
Fred Kretchman

**Food Vendors**  
Angel's Grill  
Ben & Jerry's  
Hound Dog  
Taylor Farm

**Activities**  
Kid'n Around  
Clay with Us  
and Bead It  
Orvis  
British School  
of Falconry

**Artists:**  
Luther Hall  
Kurt Vitch

Adirondack  
Guide Boat

Northshire  
Outfitters &  
Pipe Maker

Payne Junker  
metal crafter

Gary Harbour  
knife maker

Susan Leader  
Pottery

Ewe to You  
wool maker

# Thank You!

## DONOR BRICKS

An opportunity to make a difference and become part of the new home of the American Museum of Fly Fishing.



Bricks are \$100 each.

Bricks may be purchased singly or in a series that can be placed together to create a larger message.

Purchasers are free to put anything they like on their bricks (no profanity).

Each brick is 4" x 8" and has room for three lines of text of up to 20 characters per line. That does include spaces and punctuation—for example, putting "fly fishing rules!" on a brick would be 18 characters.

Call (802) 362-3300

Robert Cochran ad  
from Winter 2205

pick up Hildene ad from  
Summer issue



# live water ad

# Treasury of Reels ad

# A New Season



**A**S WE WELCOME SPRING here in Vermont, I get excited. How is the fishing going to be in this brand-new season? When can I go fishing? It is always so much fun to think about what is waiting for me at the river.

It's a new season for the Museum, too. We are excited to begin our first summer of the new museum in its new location. We plan to be welcoming a record number of visitors.

As I write this, our staff and volunteers are busy putting together our grand opening event. By the time you read this, I hope that you will have attended and are already tending happy memories.

Our search for new director is well under way. With a new museum, a new season, and soon, a new director, I can think of nothing but the beginnings of a bright future. Without your continuous support, we could not be where we are today in our efforts to preserve the heritage of fly fishing.

Speaking of your support, we have been correcting some mistakes that were made in processing our membership files. It has caused some confusion and inconvenience for some members. We sincerely apologize for this situation, and we do hope that you will be patient with us while we work to correct this problem.

On behalf of the Museum and its staff, I would like to thank you all for your generous support, especially of me—without it, I would not have been able to do my job as an interim director for the last year and a half. I thank you again.

I hope you are having a wonderful fishing season.

YOSHI AKIYAMA  
INTERIM DIRECTOR



THE AMERICAN MUSEUM OF FLY FISHING, a nationally accredited, nonprofit, educational institution dedicated to preserving the rich heritage of fly fishing, was founded in Manchester, Vermont, in 1968. The Museum serves as a repository for, and conservator to, the world's largest collection of angling and angling-related objects. The Museum's collections and exhibits provide the public with thorough documentation of the evolution of fly fishing as a sport, art form, craft, and industry in the United States and abroad from the sixteenth century to the present. Rods, reels, and flies, as well as tackle, art, books, manuscripts, and photographs form the major components of the Museum's collections.

The Museum has gained recognition as a unique educational institution. It supports a publications program through which its national quarterly journal, *The American Fly Fisher*, and books, art prints, and catalogs are regularly offered to the public. The Museum's traveling exhibits program has made it possible for educational exhibits to be viewed across the United States and abroad. The Museum also provides in-house exhibits, related interpretive programming, and research services for members, visiting scholars, authors, and students.

The Museum is an active, member-oriented nonprofit institution. For information please contact: The American Museum of Fly Fishing, P. O. Box 42, Manchester, Vermont 05254, 802-362-3300.