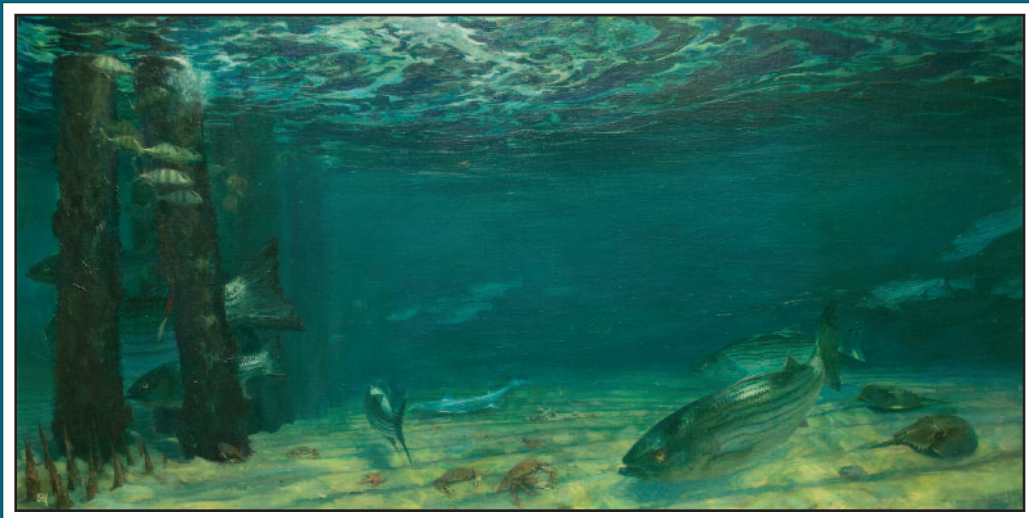


The American Fly Fisher

Journal of the American Museum of Fly Fishing



WINTER 2016

VOLUME 42 NUMBER 1

Conservation, Canada, Creativity



From The American Turf Register and Sporting Magazine Vol. II (Baltimore: J.S. Skinner, 1831), 238.

THIS MORNING I thought I saw a huge trout. I was on the coldest morning walk of the season thus far, in-the-teens-Fahrenheit-degrees cold, walking on the rail trail through farmland, stopping to turn around at the stream bridge. As I hung over the railing, I saw a massive fish dart around the bank corner—except I probably didn’t. Surely this somewhat skinny, cow-trodden water would not hold a fish like that. It was probably some quick-moving, water-dwelling mammal. I just *wanted* to see a fish.

Now I’ve come in from the cold to write notes to our Winter issue, which features articles by others who want to see fish, articles based in the even-colder country directly north of us, and articles about a couple of creative types for whom our sport is an inspiration.

After trout populations declined in the 1990s, a group of concerned citizens created the Batten Kill Watershed Alliance to restore trout habitat and river dynamics. Cynthia Browning, BKWA’s executive director, explains her organization’s work, and schools us on convoys and bunkers through helpful photos and illustrations. “The Batten Kill Watershed Alliance of New York and Vermont” begins on page 8.

BKWA’s conservation work made Browning a natural choice to present at last year’s Deborah Pratt Dawson Conservation Symposium. Beginning on page 14, we’d like to share two symposium presentations with you: Browning’s “The Testimony of the Trout: River Wood Is Good,” which complements her piece about the organization itself, and Michael S. Cooperman’s (of

Conservation International) keynote address, “Lessons in Conservation.”

Now, onto northern North America: John Buchan—biographer, poet, historian, journalist, critic, publisher, holder of public offices, governor-general of Canada—was one of Scotland’s most popular writers, well known for his thriller *The Thirty-Nine Steps*. He was also an angler. In “John Buchan: Angler and Governor-General of Canada” (page 3), Keith Harwood explores some of Buchan’s personal fishing history.

I love a good fish story, and as we (well, some of us) contemplate our complicated relationship with fish, this one hits all the right notes. In a Telling Tails piece, “The Big Fish at Fraser’s” (page 23), Hoagy B. Carmichael takes us to the Grand Cascadia to recount an adventure, a moment, and a particular salmon.

The past couple of years, we’ve used the Winter cover to feature a painting from our collection. This year Stanley Meltzoff’s oil painting, *Deal Pilings: Rooting for Shredders*, starts our 2016 journal run. Executive Director Cathi Comar’s notes on the artist, “A View Below the Surface,” can be found on page 2. And in this issue’s Batten Kill Beat, Peter Nardini interviews Bill Oyster: rod maker, engraver, fishing guide, and creator of what is by far the largest school of rod making in the world today. You’ll find this Q&A, “A Modern-Day Bamboo Master,” on page 12.

Stay warm and fishwishfull.

KATHLEEN ACHOR
EDITOR

TRUSTEES

William E. Andersen	David Nichols
Foster Bam	Robert A. Oden Jr.
Peter Bowden	Erik R. Oken
Jane Cooke	Anne Hollis Perkins
Peter Corbin	Leigh H. Perkins
Deborah Pratt Dawson	Frederick S. Polhemus
E. Bruce DiDonato, MD	John Redpath
Patrick Ford	Roger Riccardi
Ronald Gard	Franklin D. Schurz Jr.
George R. Gibson III	Robert G. Scott
Gardner Grant Jr.	Nicholas F. Selch
James Heckman, MD	Gary J. Sherman, DPM
Arthur Kaemmer, MD	Warren Stern
Karen Kaplan	Ronald B. Stuckey
Woods King III	Tyler S. Thompson
William P. Leary III	Richard G. Tisch
James Lepage	David H. Walsh
Anthony J. Magardino	Andrew Ward
Christopher P. Mahan	Thomas Weber
Walter T. Matia	James C. Woods
William McMaster, MD	Nancy W. Zakon
Bradford Mills	Martin Zimmerman

TRUSTEES EMERITI

James Hardman	David B. Ledlie
William Herrick	Leon L. Martuch
	Paul Schullery

OFFICERS

Karen Kaplan <i>President</i>	Andrew Ward <i>Vice President</i>
Gary J. Sherman, DPM <i>Vice President</i>	James C. Woods <i>Secretary</i>
	George R. Gibson III <i>Treasurer</i>

ANGLERS’ CIRCLE

Parker Corbin	John Neukom
Bailey Hallingby	Albert Nichols
Woods King IV	David E. Nichols Jr.
Alexander Kinsey	Ben Pastor
	Jason M. Scott

STAFF

Catherine E. Comar <i>Executive Director</i>	Samantha Pitcher <i>Membership and Events Coordinator</i>
Yoshi Akiyama <i>Deputy Director</i>	Shane Quintana <i>Gallery Assistant</i>
Sarah Foster <i>Development Associate</i>	Patricia Russell <i>Account Manager</i>
Peter Nardini <i>Communications Coordinator</i>	Becki Trudell <i>Public Programs Coordinator</i>
	Sara Wilcox <i>Director of Visual Communication</i>

PRESIDENT'S COUNCIL

E. M. Bakwin	Robert McGraw
Foster Bam and Sallie Baldwin	Bradford and Pamela Mills
Austin and Meg Buck	David and Margaret Nichols
Mark Comora	The Orvis Company
Jane Cooke	Leigh and Anne Perkins
Jon and Deborah Pratt Dawson	Eric and M. C. Roberts
Gardner Grant Jr.	Robert and Karen Scott
Tim Hixon	Nicholas and Jean Selch
Summerfield Johnston	Richard G. Tisch
Karen Kaplan	Ted Turner
Peter Kellogg	Paul Volcker
Robert Kleinschmidt	David and Jade Walsh
George Matelich	Alan and Nancy Zakon
Laurie Zimmerman	

MUSEUM COUNCIL

Will Andersen	Christopher Mahan
William E. Andersen	William and Lynn McMaster
Bill Ayers	Peter Millet, MD
Michael Bakwin	Teresa and Robert Oden Jr.
Dick Beattie	Erik and Jennifer Oken
Peter Bowden	Henry M. Paulson Jr.
Tom Davidson	Stephen and Roberta Peet
E. Bruce and Denise DiDonato	John Redpath
Chris Dorsey	William Rowley
David Ford	Franklin Schurz Jr.
George and Beth Gibson	Warren Stern
Tim Grell	Ronald and Joan Stuckey
Jim Head	Tyler and Francis Thompson
Paul Tudor Jones	Andrew and Elizabeth Ward
Arthur and Martha Kaemmer	Larry Wright
Bill and Francesca Leary	Woods and Wendy King III

DIRECTOR'S COUNCIL

Josh Alexander	Charlie Kaplan
Stu Apte	Kharlovka Company Limited
Gregg Belldock	Carmine Lisella
Robert and Debbie Brucker	Anne Lovett and Steve Woodsum
Peter and Lillian Corbin	Walter and Pam Matia
Anthony Davino	Joseph R. Perella
Tom Evans	Jack Pittard
Jon Fisher	South Holston River Lodge
Jon Gibson	George Van Hook
Philip Hansteen	Pat Welsh
James and Susan Heckman	Ken Wilson
Harry Hill	James Wolfensohn

THE AMERICAN FLY FISHER

Kathleen Achor
Editor

Sara Wilcox
Design & Production

Sarah May Clarkson
Copy Editor

space for FSC info



The American Fly Fisher

Journal of the American Museum of Fly Fishing

WINTER 2016

VOLUME 42

NUMBER 1

Stanley Meltzoff: A View Below the Surface 2
Cathi Comar

John Buchan: Angler and
Governor-General of Canada 3
Keith Harwood

The Batten Kill Watershed Alliance of
New York and Vermont 8
Cynthia Browning

The Batten Kill Beat: A Modern-Day Bamboo Master . . . 12
Peter Nardini

Voices in Conservation 14
Lessons in Conservation 14
Michael S. Cooperman

The Testimony of the Trout: River Wood Is Good 16
Cynthia Browning

Telling Tails: The Big Fish at Fraser's 23
Hoagy B. Carmichael

Museum News 25

Contributor 27

ON THE COVER: Deal Pilings: Rooting for Shredders. *Oil on board, 1966.*
Accompanied 1967 article in Sports Illustrated. Donated to AMFF by
Dr. Gary Sherman and Lyn Kohls, 2014.

The American Fly Fisher (ISSN 0884-3562) is published four times a year by the museum at P.O. Box 42, Manchester, Vermont 05254. Publication dates are winter, spring, summer, and fall. Membership dues include the cost of the journal (\$50) and are tax deductible as provided for by law. Membership rates are listed in the back of each issue. All letters, manuscripts, photographs, and materials intended for publication in the journal should be sent to the museum. The museum and journal are not responsible for unsolicited manuscripts, drawings, photographic material, or memorabilia. The museum cannot accept responsibility for statements and interpretations that are wholly the author's. Unsolicited manuscripts cannot be returned unless postage is provided. Contributions to *The American Fly Fisher* are to be considered gratuitous and the property of the museum unless otherwise requested by the contributor. Copyright © 2016, The American Museum of Fly Fishing, Manchester, Vermont 05254. Original material appearing may not be reprinted without prior permission. Periodical postage paid at Manchester, Vermont 05254; Manchester, Vermont 05255; and additional offices (USPS 057410). *The American Fly Fisher* (ISSN 0884-3562) EMAIL: amff@amff.com WEBSITE: www.amff.com

POSTMASTER: Send address changes to:
The American Fly Fisher
P.O. Box 42
Manchester, Vermont 05254

Statement of Ownership, Management, and Circulation

The American Fly Fisher (publication number 0084-3562) is published four times per year (Winter, Spring, Summer, Fall). Editor is Kathleen Achor. Complete address for both publisher and editor is The American Museum of Fly Fishing, P.O. Box 42, Manchester, VT 05254. The journal is wholly owned by the American Museum of Fly Fishing. Total number of copies: 1,362 (average number of copies of each issue run during the preceding twelve months; 1,450 actual number of copies of single issue published nearest to filing date). Paid/requested circulations (including advertiser's proof and exchange copies): 1,155 (average; 1,244 actual). Free distribution by mail: 0 (average; 0 actual). Sales through dealers and carriers, street vendors, and counter sales: 0 (average; 0 actual). Free distribution outside the mail: 100 (average; 100 actual). Total free distribution: 100 (average; 100 actual). Total distribution: 1,255 (average; 1,344 actual). Copies not distributed: 22 (average; 29 actual). Total: 1,277 (average; 1,373 actual). Percent paid and/or requested circulation: 93.8% (average; 94.7% actual).

Stanley Meltzoff: A View Below the Surface



*Drifting Blues. Oil over gouache on canvas, ca. 1974.
Donated to AMFF by Derby Anderson, 2010.*



*Stanley Meltzoff in his studio. Image
supplied by Mike Rivkin. Copyright
2015 Silverfish Press.*



*Three Permit and Crab, The Ring. Oil over
gouache on canvas, 1992. Donated to AMFF by
Derby Anderson, 2010.*

AMERICAN ARTIST STANLEY MELTZOFF (1917–2006) was born, raised, and educated in New York City. Upon completion of his undergraduate and graduate art degrees, Meltzoff became an instructor at Pratt Institute. A few years later, he was called to duty and worked in Italy as an artist and journalist for the U.S. military publication *Stars and Stripes*. Upon returning to New York at the war's conclusion, Meltzoff went back to teaching, but left it in 1949 to work as an illustrator. Many of Meltzoff's works appeared in national advertisements, on the covers of paperback novels, and on the covers and inside pages of magazines such as *Saturday Evening Post* and *Scientific American*. Throughout the 1950s, his work was popular and well received.

Beginning in the 1960s, Meltzoff was able to merge his talents as an artist with his passion for the ocean. As a young child, Meltzoff spent a great deal of time swimming and diving along the shores of nearby New Jersey. By the end of the 1940s, he was

an ardent scuba diver, spear fisherman, and underwater photographer. His diving exploits inspired the next phase of his career, and Meltzoff began to produce a series of works featuring fish under the water—the first of this genre. His powerful re-creation of saltwater fish species—appearing in *National Geographic*, *Outdoor Life*, and *Gray's Sporting Journal*—expanded his audience greatly.

Meltzoff received many awards for his artistic achievements, and he was inducted into the Society of Illustrators Hall of Fame in 1999.

The artwork of Stanley Meltzoff is held in many private and museum collections throughout the country, including the J. Paul Getty Museum (Los Angeles), the National Gallery of Art (Washington, D.C.), and the American Museum of Fly Fishing, to name a few.

CATHI COMAR
EXECUTIVE DIRECTOR

John Buchan: Angler and Governor-General of Canada

by Keith Harwood

Keith Harwood



Salmon fishing on the Tweed at Kelso.

THE PICTURESQUE TOWN of Peebles, situated by the banks of the River Tweed in the Scottish Borders, is home to the John Buchan Story, a small but beautifully laid-out museum dedicated to the life and work of John Buchan. Buchan was one of Scotland's most popular writers, best known today perhaps for his thriller *The Thirty-Nine Steps* (1915), which was subsequently turned into a film in 1935 directed by Alfred Hitchcock. Buchan was not just a novelist, however, but a biographer, poet, historian, journalist, critic, and publisher, as well as holder of several public offices, including that of governor-general of Canada (1935–1940). He was also a dedicated angler. During his lifetime, he wrote more than a hundred books, including an anthology of angling verse, *Musa Piscatrix* (1896), while he was still a student at Oxford.¹ It is a matter of much regret that he died at the young age of sixty-four before he had time to complete his book on his fishing experiences.

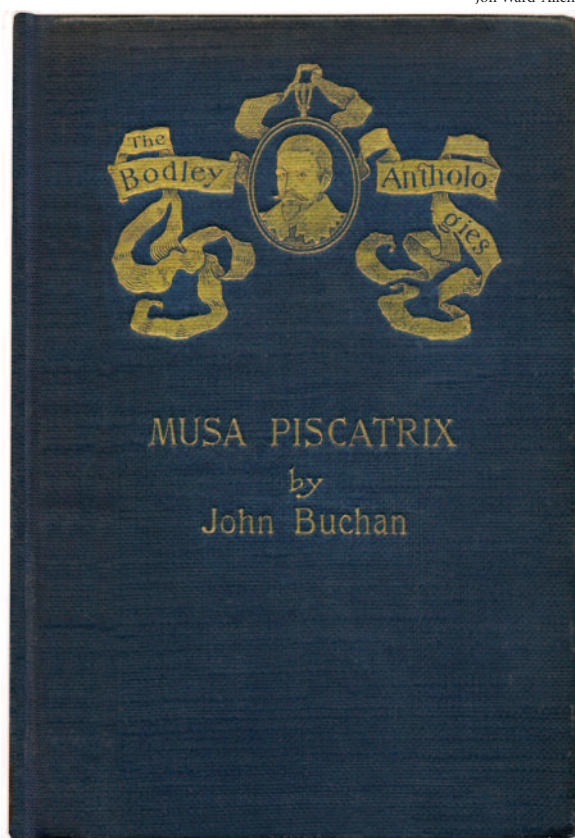
Only two complete chapters of this work, provisionally titled *Pilgrim's Rest*, survive and are appended to the English edition of his autobiography *Memory Hold-the-Door* (American title *Pilgrim's Way*), published posthumously in 1940.²

It should come as no surprise that Buchan was a keen angler when you consider that he was born at Perth, on the banks of the River Tay (26 August 1875) and spent most of his childhood holidays at his grandparents' farmhouse in the village of Broughton near Peebles in Tweeddale. The photograph above of an angler with his gillie salmon fishing on the Tweed at Kelso would have been a familiar sight to the young Buchan. However, it was not on the middle reaches of the Tweed near Kelso that Buchan began his angling apprenticeship, but on its feeder streams and burns around the villages of Broughton and Drumelzier. Like many young boys, both then and now, he started out fishing with a worm, as he tells us in *Pilgrim's Rest*:

At the age of nine my only lure was the worm. I could not cast a fly properly, and on the lower waters I made myself too conspicuous. But in those little hill runlets rush and heather provided a natural cover, and the fish were innocent things. I would drop my worm in a pool and let it float down the hidden stream until there came a check and a small trout was swung high over my head. If it came off it was as often as not lost in the thick herbage.³

The young Buchan sometimes caught up to four dozen fish in a day, although none exceeded half a pound and were subsequently fried for breakfast in oatmeal. In those early days, Buchan did not possess a creel and would stuff his catch into his pockets or thread them through the gills on rushes.

It wasn't long before he graduated to fly fishing on the Powsail, a stream that joins the Tweed below the village of Drumelzier. His fishing rod consisted of the top two joints of his grandfather's



Cover of John Buchan's *Musa Piscatrix*, published in 1896.

salmon rod, a basic reel and line, and a cast that was "far too coarse for slender waters and bright weather."⁴ Nonetheless, fishing upstream with a couple of simply dressed Black Spiders and using short casts, he caught plenty of trout averaging three or four to the pound.

While studying at Glasgow University, Buchan wrote one of his first articles, "Angling in Still Waters," which was published in the *Gentleman's Magazine* of 1893.⁵ In the article, Buchan takes us fishing for trout on a beautiful June morning to the upper waters of the Tweed. Fishing upstream with a team of three wet flies—a Grey Spider, a Teal, and a Woodcock—he soon catches a trout weighing a little more than half a pound. Shortly afterward, he catches a fish of approximately a pound on his tail fly. He also experiences the loss of a big trout, which took the fly on his middle dropper and dashed into the reeds and broke him. And so the day wears on until it is time to return for supper. It is a charming article enhanced with beautiful descriptions of the scenery and wildlife and is well worth seeking out.

As well as fly fishing, Buchan was not averse to using unconventional methods of catching trout when conditions dictated. In low water, he sometimes resorted to "guddling," or "tickling," as it is more

conventionally known. He claimed to be an expert guddler and was adept at scooping out trout with his bare hands from below stones midstream or from under deep-cut banks. He even admits to participating in the highly illegal method of "burning the water" for salmon and being arrested by the bailiffs.

Then there were the local poachers. For them trout were small beer; their quarry was the salmon out of season. They would net or spear the big red fish in the autumn streams, and salt them down for winter use. The thing was in defiance of the law, and the water-bailiffs were always on their trail, so that there were many affrays by the water-side which ended in broken heads. I have assisted in "burning the water," which was a favourite pursuit of Sir Walter Scott's, and apparently in his day not illegal. It was an exciting business, for the shallows would be reddened by torches made of barrel staves dipped in tar, and

wild figures with a three-pronged fork, called a leister, speared the fish as they blundered upstream. Once I was arrested by the bailiffs along with others, but in consideration of my youth was released with a hearty kick!⁶

This incident, which occurred when he was just sixteen years old, stood him in good stead in 1911 when he put himself forward as a parliamentary candidate for Peebles and Selkirk. He had the support of the poachers to a man!

While a student at Oxford University (1895–1899), the young Buchan discovered the charms of fishing the dry fly on the Windrush, a tributary of the Thames noted for its trout and grayling fishing. During the long summer vacations, he spent a great deal of time exploring Scotland, where he would take up quarters in a shepherd's cottage. There it was his custom to rise early, write for five or six hours, and then go fishing until the summer midnight. He was also a frequent visitor to Ardwall House, the home of Lord Ardwall near Gatehouse of Fleet, where he fished and shot in the beautiful Galloway countryside.

After leaving Oxford, Buchan moved to London intent on a career in the law. However, in spite of living in a great metropolis, his love of the countryside did not diminish, and he shared a rod with fellow Scotsman, Andrew Lang (author of *Angling Sketches*, 1891),⁷ on a little dry-fly trout stream in Hertfordshire, where he spent many pleasant Saturdays.

Following a spell in South Africa (1901–1903), where he worked on the staff of Lord Milner, the high commissioner, Buchan returned to the law in London and wrote a book on the taxation of foreign income. In 1907, he married Susan Grovesnor and became a partner in the publishers Thomas Nelson & Son. In the years before the First World War, Buchan



Burning the water. This nineteenth-century (c. 1850) image by F. Seyton was engraved by William French and hand colored. From the author's collection.

often fished with his business partner and Oxford contemporary Tommie Nelson at Achnaolich on Loch Etive and later at Lærdal (1911 and 1912) in Norway, where Nelson rented a farmhouse and stretch of the Lærdal. It was here that Mrs. Buchan had the distinction of catching the earliest sea trout ever caught in the Lærdal. Unfortunately, John and Tommie did not catch as many fish as they anticipated.⁸

During the First World War, Buchan served as an officer in the Intelligence Corps, eventually becoming director of information in 1917. After the war, he bought Elsfield Manor in Oxfordshire and became a director of Reuters and later the deputy chair (1923). In later years, he was member of parliament for the Scottish universities (1927–1935) and high commissioner to the general assembly of the Church of Scotland (1933 and 1934). In 1935, he was created Baron Tweedsmuir of

Elsfield and was appointed governor-general of Canada, a post he held until his death on the 11 February 1940.

Much of what we know of Buchan's fishing expeditions in later years comes from the writings of his eldest son, Johnnie, the 2nd Lord Tweedsmuir, who was born in 1911. John Buchan's box of salmon flies, which is now housed in the museum in Peebles, is a clear indication that he embraced salmon fishing as well as trout fishing. The box contains a selection of fully dressed flies, including a number of Jock Scotts in various sizes, a Lady Amherst, and a large Akroyd, a fly popular on the Tweed.

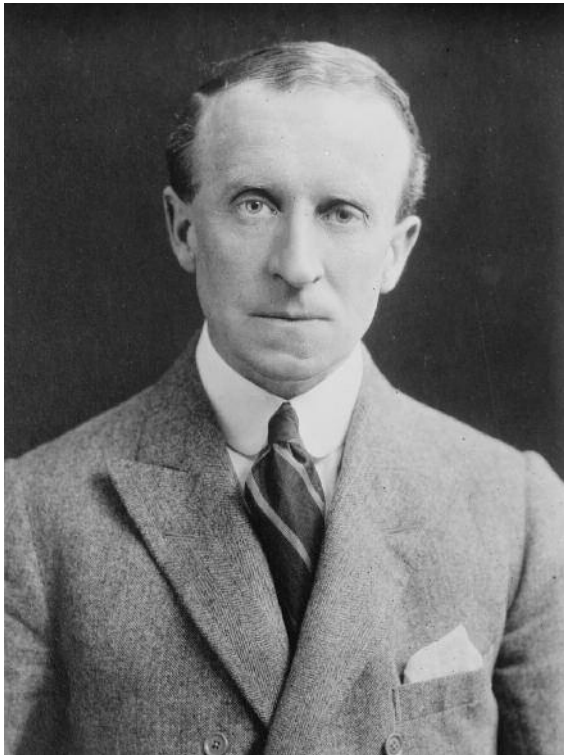
After the war, the Buchans spent most summer holidays in Scotland, either in the Borders or the Highlands. In 1922, they stayed at Letterewe, where Buchan and son Johnnie fished Loch Maree, famous for its sea trout. The following

summer they were guests of General Stronach at Kinlochbervie in Sutherland, where Buchan and his host had considerable success with the salmon, as the younger Buchan recounts in *Always a Countryman* (1953):

My host and my father caught their salmon skilfully and methodically. My father, for all his slight figure, could throw a salmon fly thirty yards and use a heavy greenheart rod all day. He was one of the finest salmon fishers that I have ever watched. The rod appeared to do his work for him.⁹

It was here that Buchan taught his son, then age eleven, to fly fish for salmon, and it wasn't long before young John landed his first fish, an 11-pounder, from Loch Ghabhaig Beg.

In 1926, Buchan, his wife, and Johnnie made the long trek up to Shetland where



John Buchan, c. 1910. From the George Grantham Bain Collection, Library of Congress Prints and Photographs Division, LC-DIG-ggbain-15984.



John Buchan's salmon fly box, courtesy of the John Buchan Story in Peebles, Scotland.



Three-hook sea-trout fly tied by the author.

*Loch Bà.*

Keith Harwood

*River Lussa.*

they stayed on Unst as a guest of the Reverend Charles Dick, an avid fisherman and a friend of Buchan's from his university days. On Unst they fished for sea trout. Charles Dick eschewed the use of fancy flies and stuck to one pattern dressed in different sizes. However, Buchan and his son frequently changed flies until they found a pattern the fish would take and, as a result, they outfished their host and took a number of sea trout from the voes, the best around 2 pounds. According to Johnnie, their most successful fly was a three-hooked sea-trout lure with a long Eton-blue wing, silver body, and red tail. The following year, the Buchan family holidayed on the Isle of Mull, where they had fishing on the little spate river, the Lussa, noted for its salmon and sea trout. According to his son, it was Buchan's habit to have his rod ready and

his cast soaking by breakfast time. He would spend the morning writing, and at twelve o'clock he would put down his pen, take up his rod and net, and go down to the sea pool. He would fish for an hour and rarely failed to bring home a sea trout. The family returned to Mull again during the summer of 1928 and rented a fishing lodge overlooking Loch Bà.

During July 1932, Buchan and son ventured to the remote Faroe Islands in search of sea trout. While there, they stayed with the Danish governor and his family, who arranged their fishing trips. It was in the Faroes that Buchan caught a large sea trout of 4½ pounds on a three-hooked lure. A day or two later, while fishing a loch from the shore, a sea trout estimated in the teens of pounds rolled over at his fly, but in spite of his repeated attempts, Buchan failed to catch it.

According to his son, the memory of that fish lived with him for the rest of his life.¹⁰

In 1935, Buchan moved to Canada to assume his new role as governor-general. Not surprisingly, while living in that vast country blessed with myriad lakes and rivers, Buchan availed himself of every opportunity to sample its fishing. The following February, Buchan embarked on his first tour of the country, where he was later joined by Johnnie, who was recovering from amoebic dysentery contracted while working in Africa. During the tour, they spent three days at a fishing camp in the Laurentian Hills in eastern Ontario, where between them they accounted for more than 150 trout.¹¹ Later that summer, they traveled to the Canadian west, where they fished for the hard-fighting Kamloops trout and for steelhead and salmon on Vancouver



Maligne Lake.

<https://commons.wikimedia.org/wiki/File:Malignelakereflection.jpg>.
Accessed 10 July 2015.

Island. While in Vancouver, Buchan was made chief of one of the native tribes and given the name Teller of Tales. In his autobiography, there is a wonderful photograph of him in native headdress.

It was the summer of 1937 when Buchan embarked on a tour to the Canadian Arctic, an area that he was particularly keen to explore. The tour started at Edmonton and reached as far as Aklavik in the Northwest Territories, calling at every Hudson's Bay post on the way. Buchan was enchanted by this vast wilderness, and on the return journey, the Buchans stopped at Tweedsmuir Park (a national reserve established by the British Columbia government in 1936), where they camped and trekked for ten days and fished for salmon and trout.

One of the highlights of Buchan's time as governor-general was the visit of King George VI and Queen Elizabeth to Canada in May 1939. After spending three days at Rideau Hall (the governor's official residence in Ottawa) with the Buchans, the royal couple embarked on a tour of the country escorted by Mackenzie King, the prime minister of Canada. Buchan felt that this leg of the tour was best left to the Canadians and took himself off to fish the Cascapedia River in Québec.

Before his death in 1940, Buchan made one last fishing expedition with Johnnie in the summer of 1939 to Maligne Lake in

the Rockies. It is poignantly recalled by his son in *Always a Countryman*:

My father and I had many golden fishing days together. They started twenty years before when I caught my first trout in Kilbucho Burn. The last was on Maligne Lake in the Rockies, where the mountains soared upwards from the lake shore, with their sparse covering of tall lean pines thinning away to bare stony summits. The lake was so clear that we could see the bottom anywhere. We caught four trout and those were not large.¹²

From catching his first trout age nine to his last trout almost fifty-five years later, it is clear that angling played a very important part in the life of John Buchan. Not only did it provide welcome relaxation from the stresses of a demanding career, it also provided him with a great deal of inspiration in his literary works. References to anglers and angling occur frequently in his novels; even his most famous, *The Thirty-Nine Steps*, contains a chapter titled "The Dry-Fly Fisherman." But that, as they say, is another story.



ACKNOWLEDGMENTS

The author would like to thank the staff of the John Buchan Story museum

in Peebles, Scotland, for their help in the preparation of this article.

ENDNOTES

1. John Buchan, ed., *Musa Piscatrix* (London: John Lane, 1896, second Bodley Head anthology).
2. John Buchan, *Memory Hold-the-Door: The Autobiography of John Buchan* (London: Hodder and Stoughton Ltd., 1940) and in the United States as Lord Tweedsmuir (John Buchan), *Pilgrim's Way: An Essay in Recollection* (New York: Houghton Mifflin Company, 1940).
3. John Buchan, *Pilgrim's Rest* (appended to *Memory Hold-the-Door*, 1940), 313.
4. *Ibid.*, 318.
5. John Buchan, "Angling in Still Waters," *The Gentleman's Magazine* (vol. 275, July–December 1893), 192–202.
6. Buchan, *Pilgrim's Rest* (appended to *Memory Hold-the-Door*, 1940), 331.
7. Andrew Lang, *Angling Sketches* (London: Longmans, Green and Co., 1891).
8. Susan B. Tweedsmuir, *John Buchan by His Wife and Friends* (London: Hodder and Stoughton Ltd., 1947), 55–56.
9. Lord Tweedsmuir, *Always a Countryman*, rev. ed. (London: Robert Hale, 1971 [originally published 1953]), 64.
10. *Ibid.*, 150–51.
11. Andrew Lownie, *John Buchan: The Presbyterian Cavalier* (Edinburgh: Canongate, 1995), 254.
12. Lord Tweedsmuir, *Always a Countryman*, 291–92.

The Batten Kill Watershed Alliance of New York and Vermont

by Cynthia Browning

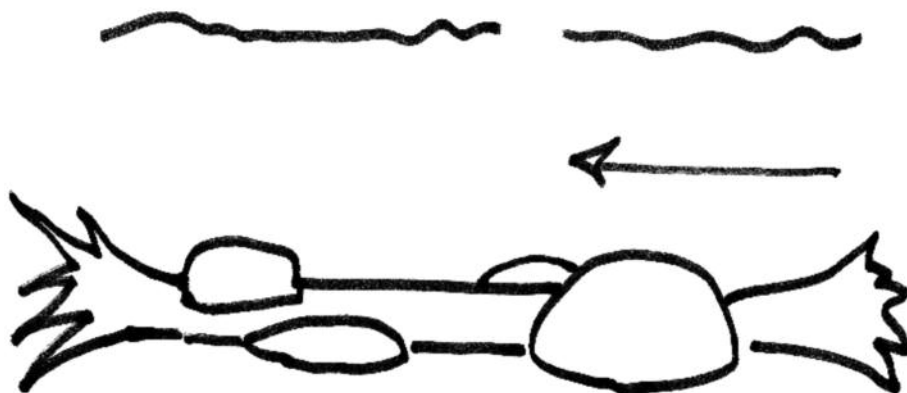


Figure 1. This sketch gives a side view of a convoy: a whole tree sunk in a pool, weighted down with stone. This provides a complex system of cover and shelter within and around the structure.

All photos and sketches by Cynthia Browning unless otherwise noted.



Figure 2. A downstream look at the Batten Kill with a new convoy structure in the foreground. Fisheries biologist Scott Wixsom walks toward the distant excavator.

The Batten Kill Watershed Alliance (BKWA) was created in 2001 to promote good stewardship of the river and its tributaries in both New York and Vermont. BKWA is fulfilling this mission through investments in the river system and public outreach. The formation of the group was motivated by stakeholder concern about a decline in the trout population in the 1990s, prob-

lems with bank erosion and channel instability, and conflicts between river users and landowners.

BKWA has achieved significant success through projects to restore trout habitat and improve river dynamics; the alliance hopes to continue this work. Such progress has been possible through public and private funding, but just as important has been BKWA's network of partnerships.

By 2005, scientific studies in New York and Vermont had identified both (1) a lack of cover and shelter and (2) poor river dynamics as factors compromising trout habitat. The BKWA board of directors therefore decided to concentrate on trout habitat restoration, which took the form of installing structures of wood and stone to address both issues. Cover and shelter means protection from predators,



Figure 3. A convoy structure next to a Route 313 embankment in low water. Without this structure, the riverbed offers little significant cover and shelter.



Figure 4. This basic bank structure can function two ways: A bank bench will be wood and stone, filled with dirt and gravel, and planted on top. A bunker will have an internal roof of trees and stone so that the water still flows in and out of the wood structure underneath.



Figure 5. A fisheries biologist supervising the start of a bunker.

floods, ice, and hot weather, which is particularly important for small- to medium-sized trout (the populations that had shown the most significant decline). This protection comes from large trees in the riverbed, large stones, deep pools, overhanging trees, and undercut banks. Poor river dynamics can mean an overwide and shallow river with little cover, which can cause bank erosion in high water because of central deposits of stone that the ordinary current is too weak to move.

BKWA and its partners have installed structures of wood and stone designed to provide cover and shelter and to improve river dynamics. These structures can take a variety of forms. Two types that have proven effective in providing protection for the fish are convoys and bunkers. A convoy (Figures 1–3) has one or more whole trees sunk into a pool, weighted down with stone. A bank bench or bunker (Figures 4–8) is a way to rebuild a bank to protect it from erosion while still allowing floodplain access and creating cover and shelter for fish beneath or along it. These are often installed along the outside of a curve. They improve river dynamics by creating a narrower and deeper main flow in the channel.

State and federal agencies in both New York and Vermont have provided the scientific expertise to design and supervise the implementation of the projects and monitor the results. BKWA provided outreach to landowners and municipalities. The local ties of neighbor to neighbor and landowner to landowner that the alliance fosters are a big part of what has made this work possible, because almost all of the riverbanks are privately owned. BKWA also administered the projects: getting surveys done, applying for permits, gathering materials, and supervising contractors. In this way, the commitment of local stakeholders facilitates the application of scientific expertise to solving problems.

These projects have been proven to increase the trout population in restored sections (Figure 9). Scientific monitoring of the first project site in Vermont across five years showed a 500 percent increase in numbers of trout compared with that river section before the project and with sections of the river that had no structures installed. All of the project work improves habitat for the brown trout population (Figure 10), but it also makes the river better for native eastern brook trout (Figure 11). The improvements in cover and shelter and in dynamics make the aquatic and riparian habitat better for many other forms of wildlife, from insects to turtles to crayfish. In fact, increasing the stability of the river channel can make the habitat better for the people whose homes and roads are along the banks.

Starting at the Route 313 bridge in Arlington, Vermont, to Route 29 in Salem, New York, BKWA has now completed seven projects in Vermont and six in New York. Each project site usually involves installation of structures as appropriate along a section that may vary

from 500 to 2,500 feet. The alliance has installed hundreds of wood and stone structures—not creating isolated spots with good habitat, but raising the productivity of the fishery over significant stretches, along with improvements in river dynamics that will help the river to

create better habitat naturally. BKWA hopes to continue this initiative with in-stream projects to jump-start the recreation of good trout habitat. In the long run, the key will be to grow large trees on the banks everywhere—trees that will prevent erosion and eventually fall into the



Figure 6. The bunker structure beginning to take shape, with trees laid down.



Figure 7. Bunker trees roofed over with slate. Dirt and bushes will be added next.

Figure 8. A view of a bunker from the river the following year, showing the bushes and trees planted on top and how water can go in and out of the wood along the bottom.



river to form cover and shelter. BKWA has already planted thousands of trees. More information about these projects can be found at www.bkwa.org.

Federal and state agencies in both New York and Vermont obtained funding for these projects, and those public funds were crucial to implementation. BKWA has also raised private funds, but without the public funds it could not have made so much progress in trout habitat restoration of the Batten Kill.

The BKWA board has directors from both New York and Vermont. The overhead is very low: the only staff is the executive director, and there is no office. The organization's resources are invested in the river. The alliance has proven the capacity to mobilize resources and to engage landowner participation in helping this river system to heal itself.

I have been involved with BKWA since the initial stakeholder meetings, serving first on the board and now as executive director. I believe that this may be one of the most important endeavors that I will be part of in my lifetime. Please consider supporting this dedicated group in their mission to restore the productivity of the Batten Kill fishery and create a better future for the river and the people who love it and live along it.

All the fish in the river will thank you.



Cynthia Browning is executive director of the Batten Kill Watershed Alliance. For more information on how BKWA helps restore fish habitat or how to support their work, go to www.bkwa.org, or contact Browning directly (PO Box 734, Arlington, VT 05250; [802] 375-9019; bkwaexdir@gmail.com).

ACKNOWLEDGMENTS

Thanks to all our BKWA partners: private landowners and alliance members; municipal governments in the Batten Kill watershed; Green Mountain National Forest; U.S. Fish & Wildlife Service; Vermont Fish & Wildlife Department; New York Department of Environmental Conservation; the Orvis Company; Clearwater, Adirondack, and Southwest Vermont Trout Unlimited chapters; Trout and Salmon Foundation; Washington County (New York) Soil & Water Conservation District; Bennington County (Vermont) Conservation District; and National Fish and Wildlife Foundation.



Figure 9. A fisheries biologist weighing and measuring small brown trout during a fish census. These are the trout that really need the cover and shelter.



Figure 10. A big Batten Kill brown trout. Photo by Chris Alexopoulos, USFS.



Figure 11. A nice native brook trout caught in the Batten Kill. These trout benefit from the habitat improvements. Photo by Jim Henderson.

A Modern-Day Bamboo Master

THE FIRST TIME that Bill Oyster witnessed fly fishing, he was growing up in the northwestern town of Powell, Wyoming. Ironically, it wasn't until he moved to the warmer climate of north Georgia that his obsession with the sport really took hold. Bill would often hike for miles, alone, and camp along the crystal-clear trout streams of the Appalachian wilderness. With trout in his backyard, Bill soon discovered that it was only a half-day drive to the Gulf of Mexico or the Atlantic to pursue sea trout, redfish, and tarpon. In other words, he was living in a place that could keep even the most enthusiastic fly fisher entertained year-round.

While attending the University of Georgia in Athens, Bill met his wife, Shannen, who would be a large part of his success in turning his passion into a career. Soon after leaving college to compete as a professional road-racing cyclist, Bill married Shannen, and they moved to Gainesville, Georgia. Just after the 1996 Olympic Trials, Bill suffered a career-ending fall while training. Suddenly he had time and energy to spare and poured it all into his fly-fishing interests. He spent time doing anything he could in the fly-fishing world, from tying flies at the trade shows to teaching casting and guiding for area fly shops.

Still in his twenties, Bill took an interest in bamboo fly rods. He loved their beauty and history and hoped to obtain one for himself. The more he learned about bamboo, the more he became intrigued by the craft. At that time, there was no one around to mentor his interest in rod making and no Internet with its endless stream of information. So it was through a small stack of dusty books and countless hours of trial and error that Bill slowly, using traditional techniques, put together his own style. Each rod produced was a bit better than the one before, and his experience in all manner of fly fishing (as well as his casting knowledge and abilities) quickly put him on the road to creating classic rods that could satisfy a more modern expectation of performance. His art training led to an aesthetic that set a new standard for the kind of beauty that could be achieved at the highest end of the niche market.

Many hours are spent at the engraving vise creating hyper-customized rods for clients around the world. When he's not crafting rods for customers, Bill shares his craft through the Oyster rod-making school. Drawing on his own experience and struggles with all techniques and methods of rod construction, he has created what is by far the largest school of rod making in the world today. Each year, more than a hundred students travel from around the world to spend a week with Bill and, using his techniques, complete their own rods. When not working, Bill often leads groups of clients on fishing expeditions to some of the most exotic and beautiful destinations in the world, where they put their creations to the test. These days, Bill and Shannen run their production shop and rod-making school in the quaint north Georgia mountain town of Blue Ridge, where they live with their two small children, Cutter and Veronica.



Bill Oyster. Photo courtesy of Oyster Bamboo.

What were your beginnings in fly fishing? Who got you into it?

I really just stumbled into it on my own. Nobody in my family had any interest in fishing, but I was captivated by it from my earliest memory. I first saw fly fishing as a kid growing up in northwest Wyoming. At the time, I wasn't too impressed, as my Zebco and can of worms seemed to do the trick just fine. It wasn't until college when I picked up a fly rod to chase the trout in north Georgia that I was really struck by not just how effective it was (and not very at first), but how beautiful it was as well.

Why bamboo?

I have always had what you might call an artistic sensibility. The romance of a bamboo rod, a wooden sailboat, or a classic motorcycle—it's not something you can explain and certainly

not something you can justify. It is either something that stirs your senses or it isn't. For me, it was and still is.

Are there any rod makers who have influenced your technique?

For me it was every rod maker who ever wrote a book. I've read them all many times over. I think that Everett Garrison's book [*A Master's Guide to Building a Bamboo Fly Rod*, with Hoagy B. Carmichael (1977)] might top the list. It made the whole process seem like such a serious and impossible undertaking that I had to give it a try!

What do you do differently than everyone else?

Strangely, I think the biggest difference between me and other rod makers is that I don't take it too seriously. Fly fishing and fly rods should be fun. Yes, I am serious about always trying to make the finest fly rods I can, because to me that *is* fun. I don't mind if others like different styles or use different methods. I'm not interested in debating tapers or plane-sharpening angles. I know what works for me and enjoy every minute of it.

How did you learn to engrave, and what goes into that process?

Early on I experienced a demand from my customers for personalization. I took a chance on myself and traveled to an engraving school in Kansas to see if it was something I might be able to do. Fortunately, it stuck. I talk directly to customers and combine their interests and history with my experience to design and create custom engravings. I sometimes spend upward of a hundred hours designing, drawing, and cutting the most elaborate pieces.

What is the creative process that you go through when making fly rods?

It all starts with the customer. I need to know how and where he or she will use the rod and if there is any strong preference in rod action or feel. All of the practical considerations come first. Only then do we discuss aesthetics. First and foremost, the rod must perform properly, consistently, and reliably. Otherwise, I might as well paint a picture instead! Some people are only looking for a simple and understated style, and we are happy to comply. Many of our more complicated rods are ordered as heirloom pieces, and my engravings are based on highly personal ideas that will stay in that family for generations.

Of the fly rods that you have made, which is your favorite?

There is no question that it is the first rod I ever made: #001. It took me six months of trial and error, reading and rereading, head scratching and cussing, but I finally achieved something I had dreamed about for years. I'll never sell this rod. It's *my* family heirloom.

What was it like fishing with and making a rod for President Jimmy Carter?

I guided President Carter again in September, and it's always the same: highly rewarding, thoroughly enjoyable, and more than a little stressful. He is, after all, a serious dry-fly man, and those big boys aren't always looking up on demand. He's a hell of an angler, though, and we always get a few to the net. The rods were originally purchased as a fund-raiser by the Carter Center. The idea they had was that he would autograph the rod before I varnished it, he would fish it for awhile, and then it would go to auction. However, after fishing that first rod for about thirty minutes, he decided that a new rod should be commissioned because the one in his hand wasn't going anywhere! It was a real honor for a young guy from a one-red-light town working all alone (at that time) in his basement!

Were there any challenges or adversities you had to overcome?

Well, starting out as a twenty-something-year-old kid in the

Deep South didn't help me fit the stereotype for a bamboo rod maker. None of the big guys in the industry really gave me the time of day back then. That's when I decided that I wouldn't spend too much time worrying about what others thought of me. Instead, I set out to make rods that were so fine, worked so well, and looked so good that it didn't matter who made them, or where. That still pretty much sums up our business philosophy, although with my gray beard, things are getting easier! In fact, all of the closed doors I experienced when starting out is what led me to teaching rod-making classes. I found that rejecting the enthusiasm of would-be rod makers just plain felt bad. That wasn't the feeling I wanted mixed up in my life's work. Instead, I decided to find a practical way to make people feel good. To this day, I've helped more people complete their first bamboo rod than anyone in history, and that makes *me* feel good. See how that works?

What is your favorite fish to go after? Do you prefer chasing hard-to-find fish and experiencing the different places you catch them in or staying local and going after the football rainbows in Georgia?

I will fish wherever I have the opportunity and have certainly spent my share of time harassing the local trout. However, like any drug, a real junkie always needs more. This year alone [2015], I've fished for trout and stripers in Georgia, bull reds in Louisiana, big browns in Patagonia, and tarpon in the Keys. In October I'll be heading to northern Argentina for golden dorado, and in November it's Andros Island for bonefish. I am an addict through and through.

Any special memories from the rod shop or people you encountered?

The shop is my home; where I sleep is less important. Employees, friends, and fishing buddies are one and the same. My wife handles the business end of things from her office, my kids do their homework sitting in bamboo shavings, our dogs sniff everyone who walks in. This is where we hang out on our days off and meet up when we go out. This place and the people who frequent it are what allows us all to live the life we want.

Are you making it a family affair? Have you taught your kids to fly fish? Have they shown interest in picking up the rod-building torch?

My kids enjoy fishing like most kids naturally do when given the chance. I am careful not to push them too much, because I don't want to chase them away. I would love it if they choose to carry the torch someday, but only time will tell.

What are your thoughts on fisheries conservation?

I've seen firsthand the effects of development, deforestation, pollution, and overcrowded waters. It's a problem we've all created and must find a way to manage. Mother Nature simply can't keep up if we continue in a thoughtless and careless manner. Still, there are those (fishermen even!) who act like there's no tomorrow and take without giving. It's a problem for sure, but one that could be managed if enough people would stop thinking about their tomorrow and instead think about their children's. Rant over.

OK. One rod, one reel, one fly, and you're on a deserted island. What do you take?

Hmmm, an island, must be salt water, gonna need to eat. An 8-foot, 9-weight Oyster bamboo (solid built for durability) with my trusty Tibor Signature Series reel and a good old Clouser Minnow. Let's go fishing!

PETER NARDINI
COMMUNICATIONS COORDINATOR

Voices in Conservation

THE MUSEUM'S INAUGURAL Deborah Pratt Dawson Conservation Symposium, held 14–15 March 2015 in Manchester, Vermont, was an exciting weekend of presentations and movies featuring conservation organizations and their use of modern technology (or in some cases, its absence) to further efforts to improve and preserve fisheries and fly-fishing waters. This symposium gave the museum the opportunity to work with our core conservation organization alliances (American Rivers, Atlantic Salmon Federation, Batten Kill Watershed Alliance, Bonefish & Tarpon Trust, and Trout Unlimited) and create a platform for the sharing of project information.

In an effort to reach a wider audience, we posted segments of each March 14 presentation on our website, and we have received positive feedback from our online visitors. The museum also wants to reach out to others who might prefer the written word, so a portion of this journal issue is devoted to two of these presentations: one prepared by keynote speaker Michael Cooperman of Conservation International and the other by Cynthia Browning, executive director of the Batten Kill Watershed Alliance. Both Cooperman and Browning discuss important insights for those undertaking and evaluating conservation projects.

We are sure these features will inspire your support of conservation efforts near and far.

CATHI COMAR
EXECUTIVE DIRECTOR

Lessons in Conservation

by Michael S. Cooperman

THANK YOU VERY MUCH for the wonderful introduction. During my professional career in applied conservation, I've had the good fortune to work on a number of projects that have developed into significant conservation issues. For example, during my PhD studies at Oregon State University, I was working on a couple of lesser-known fish—the Lost River and the shortnose suckers—when a drought hit the region. The government agency responsible for dividing water among various competing needs had to, by power of the Endangered Species Act, prioritize water delivery to protect the endangered suckers as well as the endangered salmon that lived down the river from the suckers. Very limited water went to irrigation. As you can imagine, this was not a popular decision among some members of the community.

Later, when I went to the University of British Columbia, I happened to be doing research on sockeye salmon migration right when sockeye salmon populations in the Fraser River—which supports multimillion-dollars-a-year commercial, recreational, and tribal fisheries—crashed, and we had the so-called mystery of the missing fish. Again, controversy arose when the government agencies responsible for sockeye manage-

ment shut down, or greatly reduced, all three parts of the sockeye harvest.

A final example is my current work in Cambodia. This is a rapidly modernizing country grappling with the trade-offs inherent in building big hydropower dams that will fuel economic growth but greatly affect the freshwater fish populations: a fundamental diet staple that provides about seventy-five percent of the protein consumed by Cambodians.

In all of these cases—suckers, salmon, and the tropical fish of Cambodia—there's more than ample finger pointing and chest pounding among government biologists and resource managers, commercial fishing interests, first nations and other social groups, academics, and numerous vested citizen interest groups, such as irrigation councils. I have learned a few lessons along the way that I would like to share with you today.

I've tailored my comments to address two main topics. First, I'm going to talk about three strongly interrelated technical issues that I think of as the forgotten stepchildren of the restoration project cycle: (1) stating a project goal up front, (2) acquiring pretreatment data, and (3) conducting posttreatment evaluation. Second, I will address communication and share some thoughts with you about what I really think matters when it

comes to protecting natural systems, which is getting the nonfishy folks of our community to actually care about the same thing that we care about.

Everyone here who is a part of the world of restoration likely has experienced “the thrill”—that moment when the backhoe rolls off the truck and the perched culvert gets torn out, or you put a shovel into the earth to plant a tree in the riparian zone, or you knock a tree down and convert it into river wood. But one of the things that is frequently missing from these sorts of stewardship efforts is an explicitly stated project goal. It might sound silly, but it is important to have a clearly defined goal. In some cases, the goal is self-evident. You remove the perched culvert in the hopes that you will allow fish passage and thereby open up new habitat. In other cases, the goal is not obvious. Do you repair a degraded and eroding riverbank to provide flood protection? Or are you there to stop downstream siltation and improve downstream water quality by cutting off the supply of sediment? Or are you there to increase the abundance of aquatic insects that serve as food for the early life stages of fish? Or are you there to increase the abundance of fish? or the size of fish? The same kinds of questions can apply to river-wood projects. Are you doing this

project to increase fish populations by improving young-of-the-year survival? Are you trying to increase the local abundance of adult fish? Are you trying to improve the size of the fish to improve a trophy fishery? Are you trying to improve the abundance across an entire region to recover an at-risk population? It might sound academic, but the reality is that stating the goal of your project is the only way to know if you ultimately attain your goal.

Clearly articulating the goal of an effort serves two additional purposes. First, it helps to avoid unintended miscommunication among project partners. My good friends at Ducks Unlimited and Trout Unlimited will readily agree that healthy watersheds are important for their concerns, but it should be obvious that they won't always approach projects exactly the same way or with the same inherent biases or anticipated goals. Similarly, when a local watershed council composed mostly of farmers and livestock ranchers comes together with a conservation group like the Nature Conservancy, they might all agree right away that you need to fix a given problem, but they might not agree on what the goal of that fix is going to be. Ranchers and farmers will want to protect their investments, whereas the Nature Conservancy is likely to want holistic ecology. By stating your guidelines and goals upfront, you can avoid miscommunication and hurt feelings down the line.

Stating project goals up front also serves in helping to organize the pretreatment data collection, the second of the three often-forgotten points that I want to emphasize. It's important to truly understand what you have before you start tinkering with things. Put simply, how can you be certain if your efforts have had an effect if you don't first know what you had at the beginning? Pretreatment data are typically neither expensive nor time-consuming to collect but can be invaluable when determining whether you successfully achieved your goal. If you're spending money to make more or better fish habitat, don't you want to know if you're getting more fish? Let me illustrate this point with an example from my own work, which will segue into the third of the key technical issues: posttreatment effectiveness evaluation.

While at the University of British Columbia, my professor and I were funded to do an effectiveness evaluation of stream restoration works in the B.C. interior. Specifically, I was tasked to assess whether the efforts that had gone into restoring nearly 100 eroding riverbanks were contributing to the goal of more sockeye salmon. The idea of the

bank restoration efforts was to make the river channels narrower and deeper so that less of the surface area of the river was exposed to direct sunlight, thereby lowering summertime water temperature. Unfortunately, no one measured water temperature or channel dimensions before the restoration efforts, so I could not determine if the channel was narrower, deeper, or cooler than it had been before. I knew that the rivers were at least somewhat narrower because the restoration placed large amounts of wood and rock into the channel, but did this change channel erosion and deposition processes such that the projects were rebuilding the floodplains? Or did the amount that the channel narrow exactly equal the amount of the supplies that were dumped into it? We could not answer this question because we didn't have pretreatment data and therefore couldn't do a true posttreatment effectiveness evaluation. Similarly, for the question "Do we, or will we, have more fish?," my answer was a simple "I have no idea." We didn't have a reliable measure of the number (and its year-to-year variability) of fish that were present before the restoration effort. All told, the restoration program had spent several millions of dollars, yet we could not demonstrate success.

I don't believe my emphasis on pretreatment data and posttreatment evaluation is a bunch of ivory tower hooey, and I'm not alone for calling it an essential part of the restoration process. Why this emphasis? Effectiveness evaluation is the best way to learn about what worked and what didn't. Then you can reuse your successes and you can evolve your failures to get to the success. This falls squarely into the mission of today's symposium. The American Museum of Fly Fishing putting itself forward as a data repository for restoration efforts is a wonderful step in the right direction toward collective learning about projects that have worked, sharing techniques, and learning from our failures. I applaud this effort, and I hope that it gets legs and survives.

Moving on from these three technical points, I want to focus for a moment on the idea of communication, because what I have learned in my work is that science, even when done correctly, is but a small part of the conservation equation. Conservation is really a question of social policy and communal will, not a question of technical science expertise alone. After all, you're not really managing fish, you're managing fishermen, and you're not really managing the water, you're managing how the water is being used by people. Herein lies what I call the ascendancy of communication. Some people call it education.

Getting the story of the wonders of rivers and oceans and all they have to offer to people out into the public is essential. Rivers and oceans need all the friends they can get. But communication is more than saying simply, "Wow, this stuff is cool." In my work at Conservation International, we focus on the idea of natural capital. What is natural capital? It's the realization that healthy, intact, sustained natural systems provide human society with a whole lot of services that are worth a whole lot of money. Healthy watersheds that can include things like forest and hill slopes, hydrologically connected wetlands, and rivers that are dynamically connected to their floodplain are great for modifying flood potential. If you just leave some parts of the watershed intact, you may not have to spend a king's ransom on engineering flood control or postflood recovery efforts. Healthy wetlands within watersheds will help regulate water flows. Like a sponge, wetlands can absorb water when water is abundant, and then slowly release it as the landscape dries out. So a healthy watershed can actually provide sustained water flow through the dry summer months. That's really good for irrigated agriculture. Those flows will also keep water temperatures lower to avoid summertime spikes. So the recreational fishery and the associated economic benefits to the community survive.

Communicating the power of rivers as "natural capital" is an outstanding means for motivating conservation and stewardship, and by and large, it can work in just about any location. In conclusion, what the museum is attempting to accomplish through its conservation archive is powerful, useful, and timely. Clearly, we have a lot of citizen science and social interest groups that are out there trying to protect the resources that we all love. I applaud the attempt to bring that information together, to learn what works and what doesn't work, and to help us communicate the power of these efforts.



Michael S. Cooperman, PhD, is a fish and fisheries ecologist with Conservation International. He is the lead investigator on the Hot Fish project, a comprehensive research program exploring how freshwater fishes of the tropics will respond to warming water temperatures and the consequences for human food security. He is also co-principal investigator for CI's program to describe the natural history and ecology of socioeconomically important fish species of Cambodia's Tonle Sap Lake and the design of long-term monitoring and management plans related to changing land-use practices and large-scale hydropower development within the lower Mekong River watershed.

The Testimony of the Trout: River Wood Is Good

by Cynthia Browning

["The Batten Kill Watershed Alliance of New York and Vermont," which offers an overview of BKWA's work, can be found on page 8. This article will cross-reference some of the illustrations and photos found there. —ED.]

THIS IS THE STORY of trout habitat restoration based on scientific analysis and grassroots participation. It takes place in the Batten Kill, a storied trout river in Vermont and New York that experienced a decline in the numbers of trout, especially small- to medium-sized brown trout, in the 1990s. Local stakeholders and federal and state agencies came together to study the habitat to discover why this might have happened. It was determined that all habitat conditions were good, except cover and shelter. Projects were developed to increase the cover and shelter in the river by installing structures of wood and stone in both states. Scientific monitoring has found increases in the trout population in the sections where the habitat restoration structures have been installed, and the fish seem to use structures that incorporate a lot of wood the most.

In the short run, the Batten Kill Watershed Alliance (BKWA) and its partners plan to install habitat improvement structures wherever we can as long as we can obtain funding. But in the long run, the solution is to have wooded riverbanks so that the river naturally recruits large trees to provide cover and shelter in decades to come, and good river dynamics so that the wood stays in the channel. We will also be working to educate landowners in river stewardship, protect existing wooded banks, and plant more trees.

THE PROBLEM IN 2001

The Batten Kill is one of only five rivers managed as a wild trout stream in Vermont. Native brook and wild brown trout reproduce naturally. No trout have been stocked since the early 1970s. The

fishery is currently under catch-and-release regulations. In New York, Department of Environmental Conservation (DEC) Region 5 biologists have determined that the Batten Kill has the second-best natural reproduction of any stream from Rensselaer County to Canada. The river is still stocked in sections in New York.

In the 1990s, the Vermont Batten Kill experienced a decrease in the number of wild brown trout. Electroshocking fish census studies showed a steady decline in the number of fish, especially small- to medium-sized brown trout. In New York, a study by the DEC confirmed that the catch rate had declined.

THE STUDIES AND THE HYPOTHESIS IN 2005

Both New York and Vermont initiated studies to determine the likely cause of the decline in trout numbers. Because of funding obtained by the late Senator Jim Jeffords, studies were particularly thorough and intense in Vermont. All aspects of Batten Kill trout habitat were studied by state and federal scientists, including water quality, chemistry, and temperature; habitat inventory; diseases; spawning; food supply; and geomorphic analysis. The only habitat condition that was not found to be good was cover and shelter.

Cover and shelter means protection for the fish from predators, floods, ice, and hot weather. It is provided by the river habitat through deep pools, large rocks, undercut banks, overhanging trees, and large wood in the riverbed. As much as 15 percent of the streambed should be providing this; in much of the lower main stem of the Batten Kill in Vermont, it was as low as 1 percent. Similar deficiency was found in the river in New York.

Why might this deficiency of cover and shelter have developed? There is no definitive answer to this question—we only have speculations. Photographs of

the river from the 1930s through the 1970s, when the fishery was more productive, show banks that overall have fewer trees on them than we have now. It is possible that during the log drives on dammed mill pond sections of the river into the 1920s, enough logs escaped to form cover and shelter structure in the river. It is possible that until the Red Mill Dam in West Arlington was taken out in the 1970s, impoundment raised the water level and pool depths a considerable distance upstream during the summers, also slowing dynamics and retaining wood. It is possible that expansions of infrastructure and agriculture that led to straightening, channelizing, and berming of the river in places resulted in a kind of fire-hose effect through which wood in the river is shot out into the floodplain or flood channel, rather than retained in the main channel to provide cover and shelter.

One thing that is known for sure is that as the popularity of canoeing and kayaking on the river increased in the 1980s, some people went down the river cutting and sometimes removing overhanging trees, preventing them from following their natural course of entering the river and providing cover and shelter. Landowners have also done this. Canoe rental owners and other floaters are now encouraged to just trim the minimum needed of a fallen tree to allow safe passage.

One final speculation arises from observation of the aftermath of Tropical Storm Irene (2011) in the Batten Kill. The volume of wood brought into the river by that flood has to some extent functioned like a pulse of potential cover and shelter. Before Irene, the last tropical storm to hit the Batten Kill may have been 1938. If that storm also brought a pulse of wood into the fishery, that cover and shelter would have been gone by the 1980s.

Whatever the cause of the lack of sufficient cover and shelter, our mission is to use current knowledge to restore the Batten Kill habitat for trout and for other wildlife. Figure 1 shows a good riverbed cross section with wooded banks, access

to the floodplain, a structure with deep as well as shallow areas, and retention of wood in the streambed.

Figure 2 shows a healthy pattern of curves that allow the river to create variations of velocity: fast and erosive on the outside of the curves, where trees may be pulled down into the current, and slow and depositional on the inside of the curves, where gravel bars may form.

In Vermont, the hypothesis was that the primary habitat problem was insufficient cover and shelter—the habitat characteristic that is especially important for small- to medium-sized fish whose numbers had experienced the greatest decline. There has been some straightening and channelizing of the Batten Kill in Vermont in places, but overall, it retains curvature and the basic pool/riffle pattern that constitutes healthy and stable river dynamics. There just isn't enough cover and shelter, especially from trees in the riverbed.

Figure 3 shows a poor riverbed cross section: a wide shallow channel without trees on the banks. In some areas, there would be berms blocking access to the floodplain as well. The shallow flow deposits stones and gravel in a central bar, driving the erosive force of the current into the banks.

Figure 4 shows a poor pattern in a section of the river straightened, channelized, and sometimes even bermed to protect roads, farm fields, or residences. This can create a kind of fire-hose effect in high water, through which wood entering the channel tends to end up shot out into the floodplain or flood channels instead of retained in the riverbed to provide cover and shelter. But there is an additional problem in New York from the dysfunctional effect of “stream improvement structures” installed decades ago. These log-and-rock structures were angled to form a V across the river with the point of the V

facing downstream. The idea may have been to create small pools and to protect banks, but the effect in high water was to drive the erosive force of the current into the bank. This led to significant bank erosion—as much as 20 feet in some places. Arrows in the sketch show the current driven into the bank by the deflector structures.

In the New York Batten Kill, a similar deficiency of cover and shelter was found, but the deflectors have resulted in many sections of the river that are over-wide and shallow. When the riverbed has that structure, the shallow spread-out current does not have a volume and velocity of water strong enough to move the stones coming down the river. Deposits create bars within the channel that can result in directing the current into the banks; the banks of dirt and vegetation are more erodible than the compacted stones. Within such wide shallow areas, there are typically no pools, no big

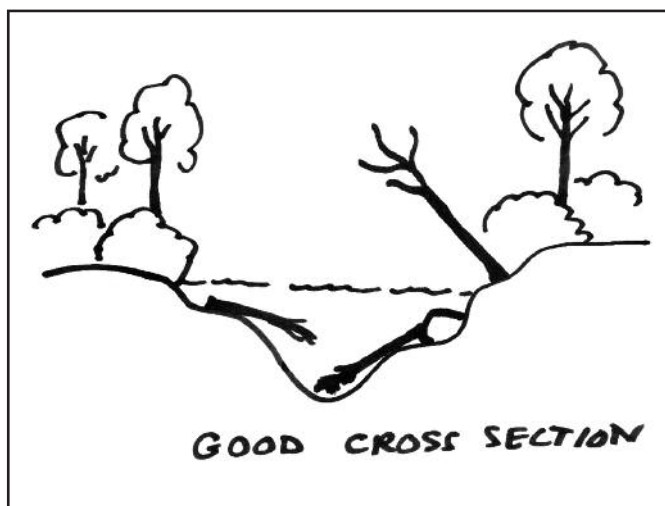


Figure 1. A good riverbed cross section.

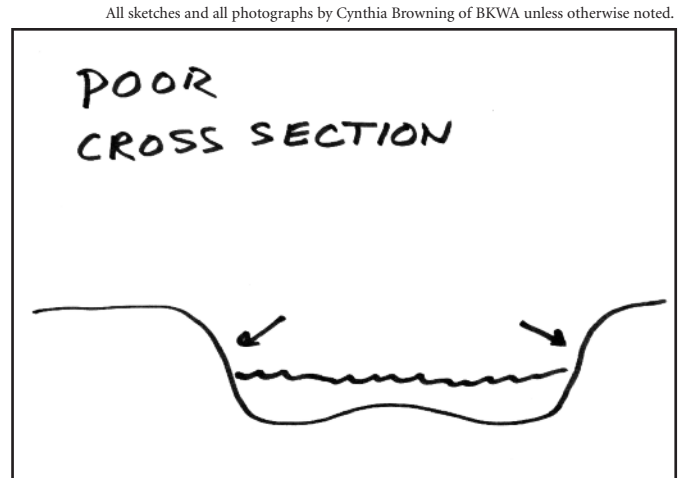


Figure 3. A poor riverbed cross section.



Figure 2. A healthy pattern of river curves.

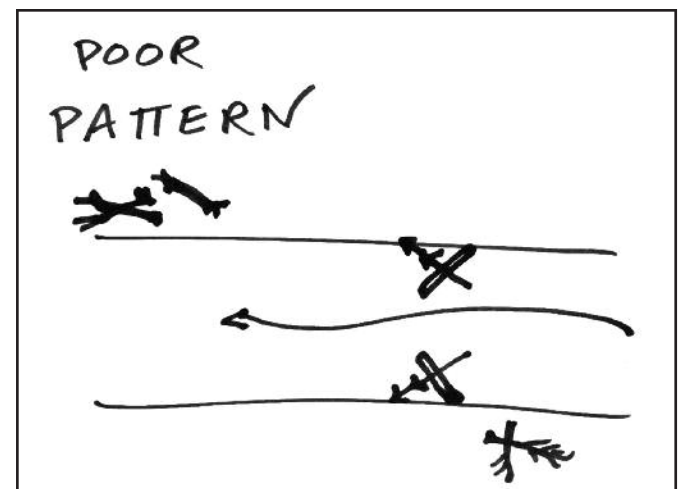
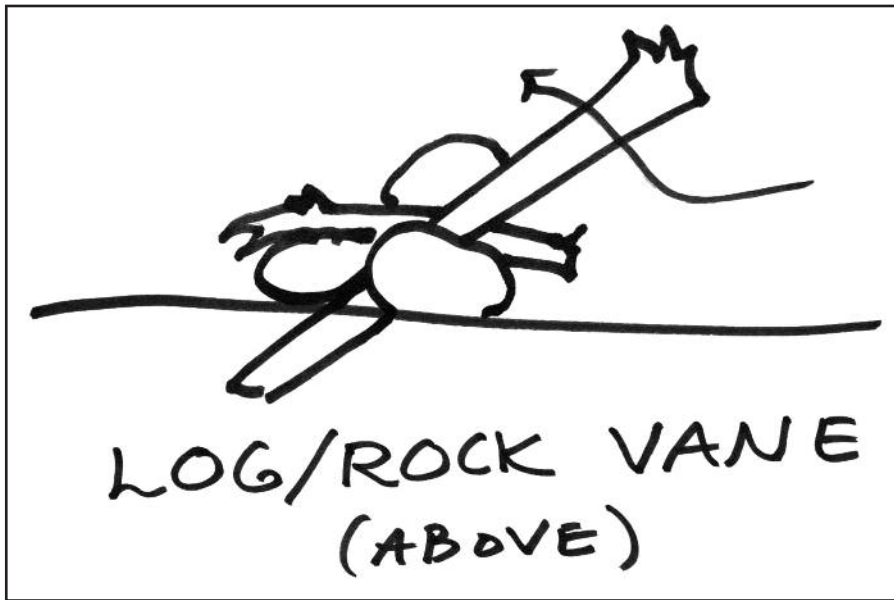


Figure 4. A poor pattern in a human-altered riverbed.

All sketches and all photographs by Cynthia Browning of BKWA unless otherwise noted.



rocks, no wood—no cover and shelter at all, and ongoing bank erosion creating problems for landowners. Before adding cover and shelter, the dynamics of these sections of the river must be remediated, using natural stream-channel design to generate better pattern and cross-section morphology.

Therefore, the restoration approach in New York has been to install structures that allow the natural river dynamics to create a deeper winding current first, which may naturally result in the formation of pools or the collection of woody debris. Alternatively, we may go back to the sites later to install cover and shelter structures when there are better places to put them.

RESTORATION PROJECTS: 2007 THROUGH THE PRESENT

BKWA obtained public and private funding for projects designed and supervised by fisheries biologists in both states. Administration of the projects involved contacting landowners, performing surveys, applying for permits, purchasing materials, hiring contractors, and working with municipalities. All river work was done under the guidance of the scientists in both states.

Vermont

In Vermont, the fisheries biologists directed BKWA to develop projects in the lower Batten Kill in Arlington, where the decline in the small- to medium-sized cohort of brown trout has been most significant and the cover and shelter is insufficient. A variety of structures of stone and wood have been used in various combinations along different sections, but ultimately two have turned out to be particularly useful to the trout habitat and river dynamics. One kind is a vane of stone and wood, and the other is what is called a convoy structure of stone and wood. It turns out that structures involving wood placed in pool areas are particularly useful to the trout. The wood creates complex protected chambers to protect fish, facilitates sediment sorting, and provides habitat for aquatic insects.

Figure 5. Log/rock vane.

Figure 6. The construction of a log/rock vane.

Figure 7. Log/rock vane construction under the supervision of Scott Wixsom of the Green Mountain National Forest.

Chris Alexopoulos, GMNF



Chris Alexopoulos, GMNF



Log/rock vanes (Figure 5) can be placed at the outside of a curve in an existing pool or on alternating sides of the channel to pinch the current into a deeper winding pattern. Figures 6–8 show the construction of a log/rock vane structure under the supervision of Scott Wixsom of the Green Mountain National Forest (GMNF). It is pretty clear that Wixsom gets up close to be sure that the structure is properly built and secured. These photos show the work in a section of the river upstream of the confluence of the Green River and the Batten Kill in West Arlington.

Figures 9 and 10 show complex log/rock vane structures, the first again upstream of the Green River confluence and the second upstream of the confluence with Benedict Brook. Like almost all of our structures in both states, these came through the flooding of Tropical Storm Irene and show collection of additional branches and wood from that. The first is a bank structure that is exposed in lower water, and the second is in deep water at the outside of a curve, providing cover and shelter year-round.

Another structure that has proven to be very useful to the trout is what I call a convoy (see page 8, Figure 1). This is built by sinking a whole tree into a pool and weighting it down with boulders and slate. Sometimes two or three trees are used if they are relatively small. All the branches and roots in this structure create a complex variety of spaces for use by different-sized fish, and it is not necessary to disturb banks to anchor it.

Figure 2 on page 8 shows GMNF's Wixsom walking downstream to join the excavator working on additional structures. The roots of the convoy trees are in the foreground and the branches in the distance. The stones can be seen dimly through the water. Figure 3 on page 9 shows a convoy in a long narrow pool area near the Route 313 embankment at the point of the lowest water levels of the year. Both photos are of work in a section some distance below the West Arlington covered bridge.

When this work is planned, the structures are designed to take advantage of pool areas, or springs or tributaries entering the Batten Kill, and of existing boulders or wood in the river. We have



Figure 8. Close-up supervision of log/rock vane construction.

Figure 9. Complex log/rock vane upstream of the Green River confluence.

Figure 10. Complex log/rock vane upstream of the confluence with Benedict Brook.

now installed habitat improvement structures in various sections from above the Route 313 bridge at the Arlington Recreation Park down to some distance below the West Arlington covered bridge. We have skipped some sections, and in some areas we have installed only a few structures based on the opportunities that the river presented, or considerations related to infrastructure, property, or swimming holes. We have covered several miles of the river in West Arlington.

New York

In New York, we have installed mostly log/rock vanes and bank stabilization structures. As discussed earlier, the river is often so shallow and wide that there are few pool areas in which to install cover and shelter structures. We must first install structures that function to narrow and deepen the main flow of the river within the existing channel. The aim is to create a dominant river flow that

curves back and forth through the channel, deeper and narrower than before, creating better pool areas. Then the river may be able to collect wood that enters the river naturally instead of shooting it out into the floodplain. Later we may be able to go back and install cover and shelter structures in pools that were not there before.

We have to remove the old dysfunctional “deflectors” before installing the structures to improve the river dynamics. Figure 11 is looking upstream at a deflector downstream of the confluence with Murray Hollow Brook in Shushan/Jackson that has driven the current into the bank, causing erosion in the foreground. Figure 12 is looking downstream at another deflector causing the same kind of erosion and channel widening between the state line park and the Route 313 bridge in Shushan.

We used log/rock vanes in New York to create a narrow, winding, deeper main current of flow. Figure 13 shows Joe Driscoll of

Washington County Soil, Water, and Conservation District viewing a structure that was put in thirty-six hours before Tropical Storm Irene hit. Other structures can be seen in the distance. Also in the photo are an unidentified photographer and Carl Schwartz of U.S. Fish & Wildlife Service. Schwartz said that the high flows of Irene put the intended improvements in river dynamics in fast forward, so that we got five or ten years of changes in the riverbed structure practically overnight.

Another structure that Schwartz has used extensively to narrow the main flow and prevent erosion can be called a bank bench or bunker (see page 9, Figure 4). This is a low shelf built with trees and rocks below the level of the main bank. If it is a bench, it will be filled in with gravel and dirt and planted to grass and bushes and trees. It will serve to narrow the main flow of the channel and to stabilize the base of the bank while still allowing floodplain access. A bank bunker is similar in



Figure 11. An upstream look at a deflector.



Figure 12. A downstream look at a deflector.

Figure 13. A log/rock vane placed thirty-six hours before Tropical Storm Irene hit.



Figure 14. Extensive erosion and widening from old deflectors.





Figure 15. An upstream view after installation of bank benches.



Figure 17. Machine access area.

structure and function, but the lower layers are not filled in; instead, they are built of trees, rocks, and brush in a way that allows the water to continue to flow in and out. This creates a complex network of cover and shelter for the trout underneath while protecting the bank from erosion and allowing floodplain access.

Figure 14, looking downstream toward the confluence with Murray Hollow Brook, shows extensive erosion and widening that is due to old deflectors. Figure 15 is looking upstream along the same general section after installation of bank benches, which are solid structures of wood, stone, dirt, and gravel. Figure 16 is a closer view of a bank bench. The bench photos were taken immediately after the work, so the dirt areas had not yet been planted with grass and bushes.

Figure 17 is the machine access area. We installed structures to stabilize the bank there and planted it to grass and trees. The

work areas shown above are in the distance upstream.

Figures 5–7 on pages 9 and 10 show the construction of a bank bunker a short distance downstream of the Route 313 bridge in Shushan. They show first the start of the construction of the bunker, then the trees that frame it, then the layer of slate stone to create the roof. Figure 8 on page 10 shows a view of the bunker structure from the river a year later, with the wood below the water level and the bushes planted on top.

We have now restored habitat in various sections starting at the New York/Vermont boundary, then skipping downstream with project sections around the Murray Hollow Brook confluence, downstream of the Eagleville covered bridge, upstream of the Highway 64 bridge, and much farther downstream above the confluence with Black Creek. We have many more habitat restoration opportunities if we can raise the funds.



Figure 16. A closer view of a bank bench.

MONITORING CONFIRMS HYPOTHESIS: THE TROUT TESTIFY IN 2011

In Vermont, the numbers of small- to medium-sized brown trout (the population cohort that showed the greatest decline in earlier studies) increased almost 500 percent. This increase is compared with the same area before the restoration and with other sections of the Batten Kill that were not restored. The scientific paper summarizing these results is “Trout Population Response to Cover Habitat Enhancement in the Batten Kill Main Stem” by Ken Cox, Vermont Fish & Wildlife Department biologist (www.vtfishandwildlife.com/common/pages/DisplayFile.aspx?itemId=111238). This is the evidence that confirms that the lack of cover and shelter has been a limiting factor in trout habitat. It



Figure 18. Dogwoods and sycamores ready to be planted.



Figure 19. Sycamore in place.



Figure 20. Log jam in the river.

confirms the usefulness and validity of our efforts. It is a very strong result for a wild population studied in the field.

The monitoring in New York has been much more anecdotal and observational, but there are definite improvements in dynamics and habitat, as well as reports of improved angling opportunities in the restored areas.

Although brown trout are the dominant sporting fish in the river itself, increasing cover and shelter makes it easier for eastern brook trout to occupy their native habitat space in the Batten Kill. It is important to note that these habitat improvement structures also serve other riparian and aquatic creatures. When the electroshocking census is done, turtles and crayfish are also found using the structures. The leaves and twigs that the structures collect provide important habitat for benthic macroinvertebrates.

In the short run, we are continuing active restoration work in both states.

But we are close to running out of funding to expand and intensify this work—work with proven success.

In the long run, the Batten Kill needs trees planted on all the banks, trees that will eventually get big, get old, and fall into the river. If the river dynamics are good, this wood can stay in the streambed to provide the cover and shelter essential to trout habitat. Wooded riverbanks have many benefits in terms of holding banks and filtering runoff.

Figures 18–20 show a tree-planting project along the Batten Kill in Manchester, Vermont. Figure 18 shows the dogwoods and sycamores to be planted, with one of the Vermont Youth Conservation Corps crew who did the planting. Figure 19 shows a sycamore in place. Figure 20 shows a log jam in the river nearby—one of the very few. This planting project of 340 trees was undertaken by the Bennington County Conservation District with the assistance of BKWA.

THE FUTURE: INTENSIFICATION AND EXPANSION

BKWA has positioned itself to continue the restoration of the Batten Kill. The alliance and its partners have the ability to design and implement the necessary projects. However, additional resources will be needed to continue this restoration work. We have a proven track record with documented success. Please consider joining our efforts.



Cynthia Browning is executive director of the Batten Kill Watershed Alliance. For more information on how BKWA helps restore fish habitat or how to support their work, go to www.bkwa.org, or contact Browning directly (PO Box 734, Arlington, VT 05250 [802] 375-9019; bkwaexecdir@gmail.com).

The Big Fish at Fraser's

by Hoagy B. Carmichael

Hoagy B. Carmichael



The fly that caught the salmon: a Green Spey with real heron hackles tied by Mark LeBlanc on a metric 1.5 standard-weight Alec Jackson Spey hook.

THE MUFFLED SOUND on the roof signaling more rain was not what I wanted to hear. The remnants of Tropical Storm Irene had already saturated the ground, leaving the Grand Cascapedia almost too high and alder tinged to fish. Peter had just arrived from Connecticut and, knowing that I had the great Fraser's Pool in the afternoon, I had little trouble persuading him to unpack his gear for the 4:00 p.m. trip north.

We met guides Perry and Carl at the Forks Pool, and soon the green-sided 28-foot Shapes canoe was slicing through the dancing raindrops, spreading them like frightened sheep. We passed the opening to the old Parson's Pool, considered to be the most productive piece of water the river had ever seen before it took an unexpected turn to the right in 1982. How many big fish over the years had passed through that famous channel, I wondered, as we coursed through Long Tail, Ray's Rock, and into the heavy water that greeted us at Fraser's. The large rock on the left side of the pool that we often stood on in summer conditions was under water. I was fearful that we couldn't hold a fly in the strong current, but with little effort, an eager 18-pound salmon took my 2/0 in a slip of reasonably calm water not too far from the tail of the pool. He gave a good account of himself, and within twenty minutes we poled back up into the weather, hoping for one more fish before the rain blew us off the river.

Carl secured the killick, bringing the canoe to rest a bit higher in the run than I imagined the sweet spot to be. Perry had a rummage through his bedraggled assortment of deadly flies, and with some assurance, I saw his hand stop. The overcast sky was robbing us of much of the evening light, but the greenish-

yellow object that was being anchored to Peter's leader appeared to be dressed on a large gold hook. "I am going to put on a Guide Fly," he said, "something they can see." We did not question his selection. "It looks like a big-fish river in this heavy water," I heard Perry mutter as we settled into the cooling, wet comfort of the canoe.

Peter's salmon rolled on the second drop near the middle of the pool, just off the edge of the heavy current. I saw the roil as the fish took the fly very near the surface and felt a rush of delight that Pete too had latched onto something. As we moved to the shore, I could sense that she was probably 20 pounds, maybe larger. The intense look on Perry's face told me that he was thinking bigger numbers, and her first run across the pool, with a nasty sideways surface thrash thrown in for good measure, confirmed his practiced eye. The width of the fish's tail outlined in what light that was left immediately charged the atmosphere for all of us, and we prepared for a long fight with a very large fish. "If you land this fish," Perry shouted, "I'll tell you a story about that fly."

Peter stayed in the boat, holding onto his 13-foot, 6-inch Loomis rod with both of his large powerful hands as the graphite tubes heaved under the weight of the fish who, by now, knew she was in some trouble and was using the heavy current to make her getaway. Perry and Carl climbed out of the boat and were holding the gunnels as we moved swiftly along the shoreline. The fish made a terrifying run downriver that quickly burned any remnant of oil that may have remained in Peter's Islander reel. The squeak of warming metal on metal, a warning sign, scared me. The fish did not show, but rather continued to run, pause, and run downriver toward the famed Lazy Bogan Pool some 800 yards away.

This piece was first published in the Winter 2011/2012 issue of the *Anglers' Club Bulletin* (vol. 86, no. 1). Used with permission.

The salmon found several pieces of water to her liking as she continued downstream, and even in the turbulence of the fast-moving current appeared to be resting there. I was struck by how powerful and determined that fish was. She could not be moved off her chosen lie even with a hook her mouth and the strength built into a modern graphite rod. We were in the middle of a high-stakes fight of wills with a fish that had already earned our respect. Twenty minutes in, and she was still very much in charge.

As the light dimmed, the salmon moved toward the boat and then swirled off into the current showing renewed determination, putting Peter's beleaguered tackle once again to the test. With each minute I was further gripped with the fear that the hook would pull out or that something would break. I was rooting for Peter to land the salmon with all I had, but the life and breath of that noble fish was also beginning to be a concern.

Perry put the large open face of the net in the cold brown-tinted water, and it was clear that landing the fish in the little light that remained was going to be difficult. Two more gut-wrenching mini-runs and, with a combination of skill and good fortune, the salmon finally eased into Perry's waiting net, exhausted.

She lay in the webbing almost motionless, having spent forty minutes trying with all her inherent instincts to avoid capture. She had little else to give. Peter called more than once to get the fish back in the water. As Perry was removing the fly, I leaned over to see for myself what a truly gallant, magnificent fish looked like. As she rested there, I saw the beautiful sleek head of a female salmon and the crimson touches on each scale mixed with shimmering remnants of light blue, the sure sign of a fish that had probably come into the river in late June. Her belly was full of roe. She was the longest and the most beautiful salmon I had ever seen.

Carl had a measuring tape, and he was able to get her length and girth before she tried to flip on her side. "Twenty-six

around the girth," Carl said. "Forty-four long."* As I watched, I think I caught her eye for a second as he was measuring her, and I saw the deep stare of fear that I now wish she hadn't had to experience. She was too splendid in appearance for that, and I joined the chorus of those who wanted her back in the river where she belonged. A quick photo (which did not turn out well), and Perry was rubbing her sides, nurturing the giant fish back to health. At that moment, all I cared about was seeing that great fish swim back into the dark waters unharmed. It didn't take long for her to revive, and with a defiant flip of her broad tail, she was free again.

In the not-too-distant past, that beautiful fish would have been hit over the head with a stick and left bleeding in the belly of the boat. Having witnessed the gallant, incredible effort the salmon had shown in her need to spawn, I could not imagine her life crushed by indifference. I admit that I fell in love with that gal on that cool, rain-swept evening and was thrilled to see the life in her as she swam away from me. I knew I had experienced something few had seen, and for a moment I didn't want the story to end. The images of that evening, with Peter's jaw set like a seasoned prizefighter bracing against that great fish, will be with me forever.



Hoagy B. Carmichael is author of A Master's Guide to Building a Bamboo Fly Rod (1977), The Grand Cascapedia River: A History (in two volumes, 2006 and 2011), and 8 by Carmichael (2010). This essay appears in his new book, Side Casts (Anesha Publishing and Skyhorse Publishing, 2015), signed copies of which are available at www.booksbycarmichael.com.

*According to various formulae, the salmon weighed 44–45 pounds.

AMFF MEMBERS REPORT: 24 OCTOBER 2015

Executive Director Cathi Comar reported on the following 2015 programs and outreach to date:

- Installation of two onsite exhibitions (*Bob Hines: National Sporting Artist* and *The New Yorker Goes Fly Fishing*)
- Public launch of first online exhibition (*A Graceful Rise: Women in Fly Fishing Yesterday, Today, and Tomorrow*)
- Installation of one offsite display (Vermont Welcome Center in Bennington)
- Publication of all four issues of the *American Fly Fisher*
- Coordination of ten of eleven onsite programs scheduled
- Addition of more anglers to Ambassador program (currently ten members)
- Expansion of all social media platforms, work with online blogs, and distribution of content to online magazines
- Change in digital format and frequency of e-newsletter *Casting About* (once a month)
- Organization of two successful fund-raising and three cultivation events throughout the United States

President Richard Tisch reported on the financial status as follows:

- The 2015 operating budget, revenues, and expenses are in line with forecasts.
- We anticipate finishing the year in the black once again.
- The major donor program continues to grow, and this year's numbers exceed last year's.
- Earlier this year, the outstanding loan from the museum endowment was completely paid down.
- Our development program continues to raise funds for restricted projects such as saltwater history, digital outreach, and the conservation initiative.
- Our 2014 financial audit was clean, and absolutely no findings were noted.

Museum News



Rare Reel Rendezvous

One benefit to AMFF membership is access to exclusive events. On September 12, the Rare Reel Rendezvous—a true, behind-the-scenes, white-glove event—was held as a thank-you to our members. They were able to take a close-up look and handle the significant reels of our permanent collection, including saltwater reels that have never been on public display. In addition, they were able to interact with reel experts and collectors who were kind enough to donate their time in celebration of their shared passion. The event was well attended by members, reel experts, and collectors, including the museum's Deputy Director Yoshi Akiyama. A special thank-you to some others who were attendance: Jim Schottenham of Side-Mount Reels, Jim Brown from the Old Reels Collectors Association (ORCA), Fred Balling of Perfect Fly Reel Company, Trustee Emeritus Jim Hardman, and Michael Hackney of the Eclectic Angler, who brought his 3D printer for a demonstration. We look forward to next year's members-only event!



Sara Wilcox

Jim Schottenham of Side-Mount Reels chats with a museum member at the Rare Reel Rendezvous in September.

Anglers' Club Dinner

On September 24, AMFF members and friends congregated at the Anglers' Club of New York for dinner accompanied by a live and silent auction to benefit the museum. Board President Richard G. Tisch was the venerable host, master of ceremonies, and auctioneer for the evening, which raised almost \$12,000 for AMFF public programs. We are grateful for the support of all the attendees, as well as the generosity of the following auction donors: E. M. Bakwin, Douglas Outdoor, Rachel Finn, Pat Ford, Ed Jaworowski, Carmine Lisella, Sara Low, Anthony Magardino, Scientific Anglers, the Hungry Trout, Tyler Thomson, Ted Turner, Wyoming Whiskey, and Alan and Nancy Zakon. We would also like to thank Carolyn Chadwick and her team at the Anglers' Club for making us so welcome.



Sara Wilcox

In October, the museum welcomed Maple Street School students for a tour of the exhibit and to create practice rods and clown flies.

Grand Day Out

Members of the AMFF Council Program gathered on October 2 at the Hollenbeck Club, one of Connecticut's oldest private clubs, for a day of fishing and dinner. The museum would like to extend a sincere thank you to former trustee and longtime museum supporter John Mundt for hosting this complimentary event. We hope to offer an event each year in appreciation of our great supporters.

2015 Friends of Corbin Shoot

Hudson Farm welcomed the museum at the 2015 Friends of Corbin Shoot event in late October. Guests traveled from Louisiana, Florida, and around the Northeast to participate. Pictured is the shooting of the cannon (right), which marked the start of the two-day event benefiting AMFF and Fort Ticonderoga. Each year the participants are given a chance to win a painting by sporting artist and AMFF Trustee Peter Corbin. This year, Jon Gibson was the lucky winner of the original work *Drifting the Edge*. Funds generated through this event



Michael Gallart

Shooting the cannon marked the start of Friends of Corbin Shoot, which benefited AMFF and Fort Ticonderoga.



Sara Wilcox

With a grant from the Mount Laurel Foundation, the museum worked with the United Counseling Service of Bennington County (Vermont) to develop a program combining fly fishing's healing and therapeutic properties with the UCSVT focus on teaching developmentally disabled adults new wellness skills.

directly support the museum's digital initiative. We truly appreciate the participation of the shooters, along with the efforts of Peter Corbin, Korky Podmaniczky, and the entire team at Hudson Farm.

Hooked on the Holidays

On December 5, the museum, partnering with Southwestern Vermont Chapter of Trout Unlimited, welcomed more than 50 guests to our annual Hooked on the Holidays event. Community members and families, museum trustees, and friends of fly fishing joined us for an open house to create fish ornaments, build jewelry, decorate cookies, learn fly casting, craft Christmas cards, tie clown flies, and make practice rods. S'mores and hot cocoa were on hand to keep visitors warm as they took advantage of free admission to the museum's exhibit. Thank you to all who shared this special time of the year with us and to the American Museum of Fly Fishing's program sponsors, Orvis and TD Bank.

In the Library

Thanks to the following for their donations of titles that have become part of our permanent collection:

Skyhorse Publishing sent us Darrel Martin's *The Fly-Fisher's Companion: A Fundamental Guide to Tackle, Casting, Presen-*



Sara Wilcox

A young visitor focuses intently on the bracelet she's making during AMFF's annual Hooked on the Holidays event.



Sara Wilcox

The American Museum of Fly Fishing recently completed our own conservation project on the Manchester property. We received a three-year grant from the Natural Resources Conservation Service to eliminate invasive plants along our stream bank and to reintroduce native tree species to encourage a healthy water system.

tation, Aquatic Insects, and the Flies That Imitate Them (2014); Dan C. Frasier's The Orvis Beginner's Guide to Carp Flies (2014); and Greg Senyo's Fusion Fly Tying: Steelhead, Salmon, and Trout Flies of the Synthetic Era (2015). Frank Amato Publications, Inc., sent us Lee R. Baerman's Fly-Fish the Surf (2014).

Recent Donations to the Collection

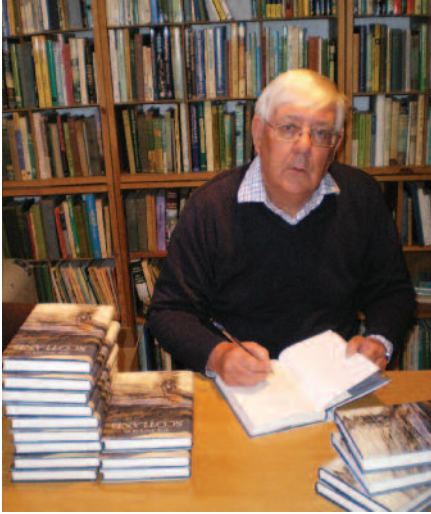
Barbara Phillips of New Russia, New York, donated a collection of fly-angling materials of Bill Phillips on behalf of Joan Crane. **J. Louis Newell** of Dedham, Massachusetts, gave us a collection of salmon fly-angling materials. **Leigh Perkins** of Grover, Wyoming, donated collection of eight graphite rods. And **William Sheehan** of Barnesville, Maryland, donated a collection of fly rods and reels. For a detailed list of any of these collections, contact the museum.

Gordon Hill of Big Pine Key, Florida, sent us a collection of materials related to Edward "Pop" Hill and his Pop Hill Special bonefish flies, as well as a John Emery saltwater fly reel (no. 562). **Carmin Lisella** of New City, New York, gave us a 4-inch Milward's Seafarer reel, a 3-inch Nottingham reel, and a Bauer MZ6 large-arbor reel. **Michael Hackney** of Groton, Massachusetts, donated one of his 3D-printed Tranquility fly reels.

Michael Barth of Liverpool, New York, donated a fourth-impression copy of Mary Orvis Marbury's *Favorite Flies and Their Histories* (Houghton Mifflin, 1892). **Jim Heckman** of Manchester, Vermont, brought us a metal sculpture of a permit. And **Howard Bleakie** of Manchester, Vermont, gave us a Consolidated Tour Map of Eastern States issued by the Orvis Inn ca. 1960.

CONTRIBUTOR

Jon Ward-Allen



Keith Harwood retired from full-time teaching in the summer of 2012. He then taught Latin and Greek part time for a few months at Stonyhurst College, a Jesuit foundation where Sir Arthur Conan Doyle, the creator of Sherlock Holmes, was a pupil and the poet Gerard Manley Hopkins was a teacher. Harwood now spends his time writing, fishing, fly dressing, and helping to look after his three grandchildren. His most recent books are *Fish and Fishers of the Lake District* (2014) and *The Angler in Scotland* (2015), both published by the Medlar Press. He is currently working on a book about John Buchan and angling, which he hopes will be published in 2016.

Upcoming Events

Events take place on the museum grounds in Manchester, Vermont, unless otherwise noted.

January 29–31

Somerset Fly Fishing Show
Garden State Convention Center
Somerset, New Jersey
Please stop by the AMFF booth.

February 13

Gallery Program: Fit to Be “Tyed”
10:00 a.m.–4:00 p.m.
Fly-fishing activities for all

February 27

Gallery Program: Fit to Be “Tyed”
2:00 p.m.–8:00 p.m.
Fly-fishing activities for all, followed by pizza, cash bar,
and Pig Farm Ink Iron Fly Contest

March 5

Gallery Program: Movie Madness
4:00 p.m.–6:00 p.m.
Finding Nemo and popcorn

March 26

Gallery Program: Movie Madness
7:00 p.m.–9:00 p.m.
Mini fly-fishing film festival, cash bar, popcorn

April 2

Gallery Program: Spring Training, Gear Swap, and Sale
10:00 a.m.–4:00 p.m.
For all ages

April 9

Gallery Program: Opening Day Celebrations
10:00 a.m.–4:00 p.m.

June 18

Canvas ‘n’ Cocktails
4:00 p.m.–6:00 p.m.

July 9

Canvas ‘n’ Cocktails
4:00 p.m.–6:00 p.m.

July 17

Celebrate National Ice Cream Day!
Fly-fishing activities and free ice cream
1:00 p.m.–4:00 p.m.

August 6

9th Annual Fly-Fishing Festival: A Taste of the Great Outdoors
10:00 a.m.–4:00 p.m.

September (date TBA)

Members-Only Event
Rare Read Rendezvous
1:00 p.m.–4:00 p.m.

September 24

Smithsonian Magazine Museum Day Live!
Free admission with a Museum Day Live! ticket

October 9

Fall Foliage Fiesta
10:00 a.m.–4:00 p.m.
Complimentary cider, donuts, and member gift

December 3

Gallery Program
Hooked on the Holidays
1:00 p.m.–4:00 p.m.

Always check our website (www.amff.com) for additions, updates, and more information or contact (802) 362-3300 or events@amff.com. “Casting About,” the museum’s e-mail newsletter, offers up-to-date news and event information. To subscribe, look for the link on our website or contact the museum.

We are manufacturers of fine heirloom sporting accessories. We are pleased to offer our scrimshaw bone and solid brass cufflinks & blazer buttons and lapel pins in a wide variety of images including:

The American Museum of Fly Fishing logo, Tarpon, Atlantic Salmon, Permit, or any one of the iconic sports trophies shown on our website.



Prices are as follows:

Lapel Pin.....	\$120
Cufflinks.....	\$300
Blazer Buttons.....	\$350

Order your set online at amff.com/shop or by calling Samantha Pitcher at 802-362-3300. For each purchase, a portion of the proceeds will benefit AMFF.

J.W. PITTARD & COMPANY, LTD.
ISLANDS AND STREAMS – SCRIMSHAW COLLECTION™

'Tis the Season of Change



AMFF President Karen W. Kaplan.

THE AUTUMN MONTHS bring change to our corner of Vermont, and visitors from near and far gather in Manchester to marvel at the colorful show that Mother Nature orchestrates. This year the trees were particularly stunning, and many anglers took advantage of the unseasonably warm weather to close their fishing season amongst the red, yellow, and orange backdrop. Fall is also a busy time for the museum, as the number of daily visitors peaks just before the end of October.

We witnessed changes at the 2015 AMFF Annual Members Meeting as well. One board president finished his term, and another trustee assumed this leadership role. Karen W. Kaplan was welcomed as the new board president and looks forward to working with staff, museum members, and trustees as we continue to expand our public programs and outreach. Karen

has been on the board since 2010 and was instrumental in planning our development program since its inception in 2012. The museum wishes to thank Richard G. Tisch for serving as president since 2013 and guiding us as we developed and undertook our digital initiative. Andrew Ward, our current Nominating Committee chair, was elected to vice president.

For museum members unable to attend this annual meeting, we have included in this issue a summary of the executive director's and president's reports on page 24. In brief, our financial status is positive, and our public programs meet our mission in an engaging manner.

Thank you to all of our members for your support!

CATHI COMAR
EXECUTIVE DIRECTOR



Catch and Release the Spirit of Fly Fishing!

4070 Main Street • PO Box 42
Manchester, Vermont 05254
Tel: (802) 362-3300 • Fax: (802) 362-3308
E-MAIL: amff@amff.com
WEBSITE: www.amff.com

MISSION

THE AMERICAN MUSEUM OF FLY FISHING is the steward of the history, traditions, and practices of the sport of fly fishing and promotes the conservation of its waters. The museum collects, preserves, exhibits, studies, and interprets the artifacts, art, and literature of the sport and, through a variety of outreach platforms, uses these resources to engage, educate, and benefit all.

The museum provides public programs to fulfill its educational mission, including exhibitions, publications, gallery programs, and special events. Research services are available for members, visiting scholars, students, educational organizations, and writers. Contact Yoshi Akiyama at yakiyama@amff.com to schedule a visit.

VOLUNTEER

Throughout the year, the museum needs volunteers to help with programs, special projects, events, and administrative tasks. You do not have to be an angler to enjoy working with us! Contact Becki Trudell at btrudell@amff.com to tell us how we would benefit from your skills and talents.

SUPPORT

The American Museum of Fly Fishing relies on the generosity of public-spirited individuals for substantial support. If you wish to contribute funding to a specific program, donate an item for fund-raising purposes, or place an advertisement in this journal, contact Sarah Foster at sfoster@amff.com. We encourage you to give the museum consideration when planning for gifts, bequests, and memorials.

JOIN

Membership Dues (per annum)

Patron	\$1,000
Sponsor	\$500
Business	\$250
Benefactor	\$100
Associate	\$50

The museum is an active, member-oriented nonprofit institution. Membership dues include four issues of the *American Fly Fisher*; unlimited visits for your entire family to museum exhibitions, gallery programs, and special events; access to our 7,000-volume angling reference library; and a discount on all items sold by the museum on its website and inside the museum store, the Brookside Angler. To join, please contact Samantha Pitcher at spitcher@amff.com.



Scan with your smart-
phone to visit our
collection online!