

What are TROUT looking for?

From Opening Day on, trout have one thing on their minds . . . the search for food. The fly fisher who reads their daily menu and locates their cafeteria line is halfway there . . . the rest is a matter of designing or selecting a fly that reproduces that trout's diet most effectively. For the way to a trout's mouth is through its stomach.

Datus Proper

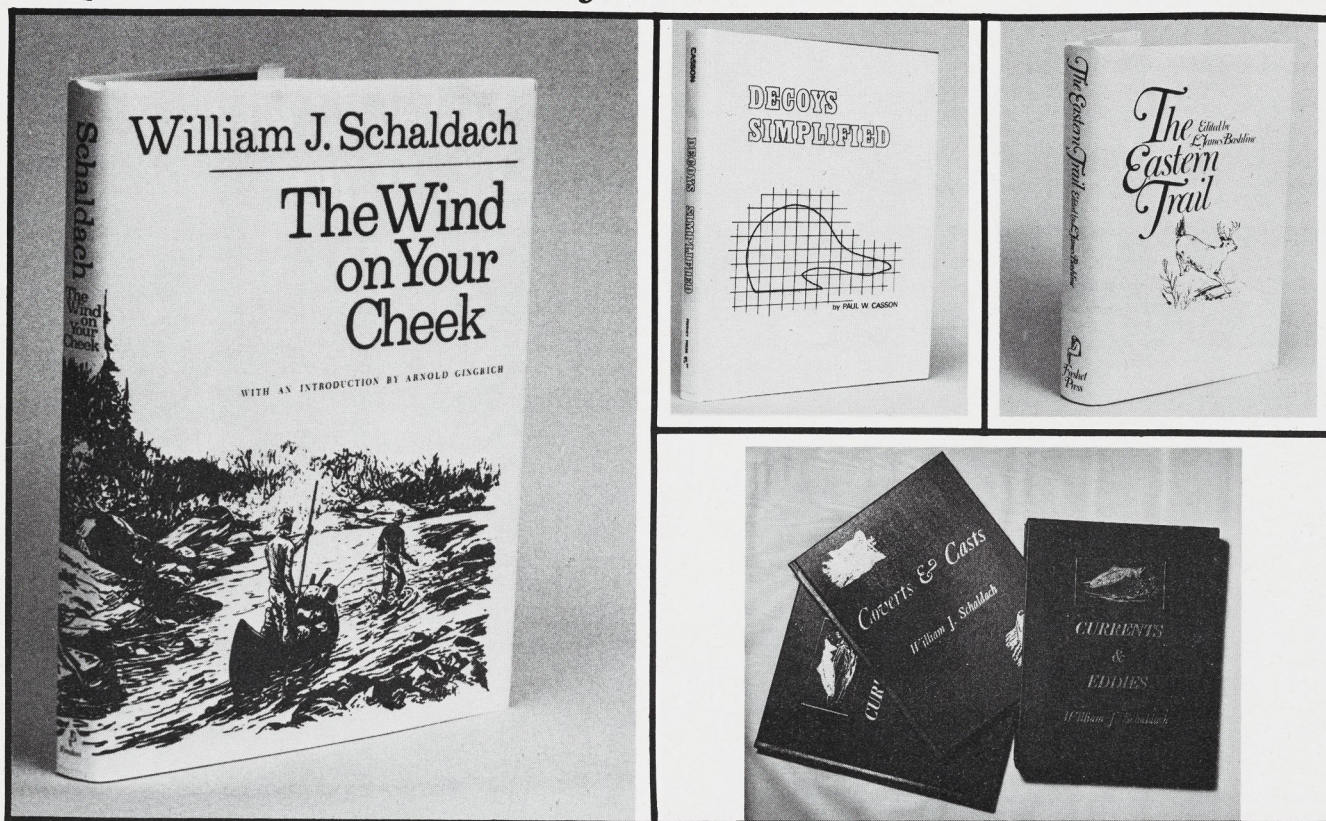
IN THE ROCKIES, early August can be both spring and autumn, and this day had the best of both. A breeze from a cloudless sky ruffled the surface of the upper Yellowstone River. I had one whole bank to myself, because I had eased across in a spot that would not appeal to anyone except a tall fanatic in felt-soled waders. A snipe darted up at my feet, a raven croaked, and a coyote hunted mice in a meadow of sunburned grass. That kind of day could almost make a fellow sit down and forget about fishing — until the trout start moving.

But the sun worked on cold water, little nymphs in the stream bed responded to the warmth, trout responded as nymphs hatched into mayfly duns, and I responded to the rising trout. I was stalking one that had refused me repeatedly the day before. He quietly took little floating duns from a patch of glassy water just above a boulder. Yesterday, he had turned down a little Light Cahill, though smaller fish had accepted it. I had caught the natural mayflies and tied a better imitation that evening on a #18 hook, using a light dubbing of yellow-cream fur on olive silk for the body, with a blue-dun hackle and tails. On my first two casts, the fly did not

cover the fish: it's hard to control a long .005" tippet in the breeze. On the third try, the little dry fly lit a foot upstream from the trout, floated down naturally, and disappeared into jaws that had accounted for generations of real live mayflies. The trout fought with deep jerks, like most other cutthroats at the top of their growth, but eventually lay on his side in the shallows, orange birthmarks pulsating under his gills.

The idea behind fly-fishing has always been that simple: you find what the trout is eating and send him an imitation with a hook in it. More often, especially where cautious brown trout are involved, I spend all day crawling around in wet grass, casting to rising fish, and being turned down most of the time. My excuse is that I am trying to learn something: why do fat, spoiled trout reject most flies — and accept a few others? That means searching out a special kind of stream, with fertile water and gentle currents, where trout have plenty of food and can afford to be selective. Even in rich limestone streams, it takes a lot of experimenting to find how trout react to just one variation in an artificial fly: say, a change in body color or the addition of wings. In most fast-water "free-stone" streams, the experiment would be hopeless, because

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William J. Schaldach

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A fly fisher plies his way along one of Ireland's food-rich limestone streams. Photos by Datus C. Proper.

any reasonable fly often works when hungry fish have to make quick decisions.

There were some food-rich streams in the Yellowstone area, where I grew up, the "spring creeks" and the Firehole river, for example. When I joined the Department of State and moved to Washington, D.C., I haunted the limestone creeks of southern Pennsylvania. A few hatches of mayflies are still dependable there. A big break was assignment to the American Embassy in Dublin, Ireland, the limestone cradle of classic fly-fishing. Hatches of mayflies and caddis flies here are impressive. In a month, I can get in more time over difficult, free-rising trout than I could in the United States during a whole season.

My search has been for the answer to two questions:

—what qualities in an artificial fly induce selective trout to take it?

—how can I reproduce these qualities in the flies I use?

These questions, obviously, are at the very core of fly-fishing. Even partial answers require many lifetimes of invention and observation. I tried to find the best ideas available and test them — while keeping track of my sources. (It's

remarkable how many "new tricks" were really described before 1920.) On both sides of the Atlantic, my approach has been to start with a traditional imitation of a specific fly, then tie new variations after every fishing day. Eventually, imitations of one insect can fill a whole fly box, and they do in the one illustrated. I would hardly need so many patterns just to catch fish, but the experiment has helped show the advantages and disadvantages of each style under different conditions. Often the best pattern for me turns out to be very different from standard patterns.

On the first question — what qualities in an artificial fly induce a trout to take it — the problem is to measure what looks good to the *fish*, not the angler. Here are my four suggestions on these basic qualities. They are listed in rank

Datus C. Proper, raised on the Firehole and the Madison and the Montana spring creeks, did much of his later angling on the limestone creeks of southern Pennsylvania while he was in Washington with the State Department. During this stint he was president of the Washington chapter of Trout Unlimited. He is now attached to the U. S. Embassy in Dublin, Ireland.



Proper with a typical Irish brownie

order, and this is important. Now, trout are not mechanical objects with programmed responses, and they sometimes switch the list around a little. Most of the time, flies with these four qualities at least work better than wild guesses, friendly advice from barefoot boys with bent pins, mysterious sun/moon tables, witchcraft, and other kinds of fly-box roulette.

What Qualities are Important in Flies?

1. *Behavior.* An artificial fly must act naturally before trout even look closely enough to detect other factors. And behavior depends in large part on good presentation with the right tackle, which is outside the scope of this article. The idea was summed up in 1857 by W. C. Stewart, who first championed upstream fishing: "... the nearer the motions of the artificial flies resemble those of the natural under similar circumstances, the greater will be the prospects of success." It is easy to forget this advice, because other qualities are so much easier to see and to imitate.

If good presentation alone is sometimes enough to catch trout, why go further? Because, frequently, almost *everything* has to be right. A trout that is 80 percent interested in your fly is still not going to take it.

Some behavior factors can be suggested in the design of the fly. A mayfly, for example, can be moving or drifting underwater as a nymph, hatching (usually in the surface film), riding fairly high as a dun, laying eggs as a mature spinner, or dying. Imitations can simulate these changes by varying weight, hackle stiffness, and hackle shape. Caddis flies often float peacefully, when they can easily be imitated by a new tie; and they can also buzz over the surface, when the imitation needs plenty of hackles — as in palmers and bivisibles. Details on different styles are given later. In deciding which one to use, the most important things to note are whether the natural fly is floating high or low, and whether it is motionless or moving on the water under its own power.

2. *Size.* This involves a compromise between good hooking qualities, which require a fairly large hook; and good imitations, which often need a small hook. Where the natural fly is large, it pays to try imitating the smallest members of any particular hatch — for example, the male duns of many mayfly species — and then to do it on the smallest possible hook, down to about #18. If the natural insect is extremely

small, however, it may be wise to try a larger-than-life-size imitation — especially since no one is making a properly designed hook below #18 or #20. Fortunately, trout sometimes settle for an underdressed size 20 imitation when the natural is a 24.

3. *Shape.* Some floating natural flies lie flat on the water, presenting only two-dimensions — a silhouette — to the trout. These are easily imitated today, although, oddly enough, it was only recently that some of the best "silhouette" designs were worked out. Where the naturals have high wings — like mayfly duns — the problem is three-dimensional and more difficult. There is still a hot argument over the need for wings on artificials. As far as I can make out, trout usually do see wings clearly, and imitations should suggest them. Perhaps the argument started over an unfortunate word. Flies dressed only with hackles are sometimes called "wingless," and some unwary fishermen have taken the description literally. In fact, however, the hackles themselves form a good representation of wings. Trout, being mostly illiterate, are not confused.

4. *Color.* Here is the most elusive quality of all. I am using the term very broadly, to include tone, brightness, and translucency, as well as basic color. Trout sometimes pay little attention to these things — which is just as well, because few standard patterns would ever work if anything like precise color were needed. On the other hand, I have fished rises when color was even more important than shape. The trout's color perception must depend on the angle and quality of light rather than on amount of light, as color selectivity is common in late-evening rises. Color perception may also relate to the angle at which the trout approaches the fly. But this is a big subject, and one about which we still know little. Many good anglers have been concerned mainly about the color of flies' bodies, which is certainly important if the body rides on the water. Hackle color has also been important for me, but not so important as hackle quality.

Good, stiff, shining hackles in the best colors are hard to find, and dyed ones are not very good in the delicate shades. For the man who ties his own flies, however, imitating body color is cheap. One method takes only a couple of dollars' worth of dubbing fur in different colors, and dyed shades work well here. A thorough mix is quickly prepared in a dry kitchen blender. The blend should then be spun on thread, wound on a hook, and checked by daylight, low against the sky, with the natural insect for comparison. Check to see how the fur changes color when treated with floatant and put in the water. If an angler does not want to take this trouble, he may do as well with plain hare's ear, peacock quill, or some other simple material in a color not too far off the natural.

THERE ARE MANY CRITICISMS of imitative flies, often based on misunderstandings. We should be modest enough to admit that our best artificial flies can be only rough suggestions of natural insects. When fly-tiers forget this, they sometimes copy characteristics of a captured fly with utmost care — forgetting the more important quality of behavior. Here, however, the fly-tier has gone wrong, not the basic idea. Simple imitations that behave naturally are usually more reliable than heavy, elaborate patterns.

Another criticism is that a trout's perception sometimes

seems to differ from that of a human. As an example, green-olive-bodied flies of the *Ephemerella* genus — true “Blue-Winged Olives” — are tricky on both sides of the Atlantic. In Pennsylvania last summer, trout rising for them refused my close imitation and settled for a grey fox-fur body, perhaps because the hackles were better. In Europe, the original Blue-Winged Olive mayfly is notoriously difficult to imitate. Sometimes a body of “natural” green-olive color will do, but often a bright orange or a pheasant-tail brown does better. Both of these variations do pick up colors present in some of the hatching duns, but in exaggerated form. Fortunately, trout and fishermen often agree, and a fly that looks right to the human eye is a reasonable starting point.

There is an important exception. When the water is fast and the trout are not selective, a fancy, high-floating dry fly with conspicuous wing may be best — say, a Hairwing Royal Coachman. Such a fly, however, is chosen for visibility to the angler, not appeal to the trout. It’s hard to fish a dry fly well if it cannot be seen.

When a more careful approach is needed, it is worth trying to find a natural insect the trout are taking. Next step is to see how the insect fits the four qualities described above. A good look at the natural is worth any number of patterns read from a book.

If the insect is a floating mayfly or sedge, there is a choice of one of the following design variations. (There are many others, but I am at least sure from stream testing that all these are balanced and practical.) An angler wanting to imitate all four qualities of the natural will probably have to tie his own flies or order them from a good professional. Standard patterns, however, can often match two or three leading qualities. The same approach can be applied to all other insects, though there is not room here to cover stoneflies, midges, terrestrials, or nymphs before they begin to hatch.

Mayfly Variations

Mayfly imitations shown in the fly-box and in separate photos all suggest an “Olive” of the *Baetis* genus (not “Blue-Winged Olive,” which belongs to a different genus). The Olives are a good subject, as they are regionally abundant throughout the Northern Hemisphere.

A. *Hackle Flies*. This usually describes an ancient design, with cock’s hackle forming a full circle behind the eye of the hook, a body (with ribbing if desired), and a tail. The hackle suggests both legs and wings of the natural, but hackle color should be chosen to match the more conspicuous wings. Often two hackles of different colors are needed. Today, simple hackle flies seem to be going a little out of vogue, but they gradually replaced “winged” flies in the early years of this century. Effectiveness of the simple patterns was widely admitted, but some anglers complained that they were unsporting! Everything goes in cycles.

Hackle flies are simple to tie, durable, and light. They float for a long time with little attention. Perhaps most important, plain hackle flies almost have to land correctly on the water, because any position is about equally good. Winged flies should “cock” — land on the water with wings uppermost — and sometimes they do not, especially if the fly is allowed to float down to the surface naturally on a loose leader.

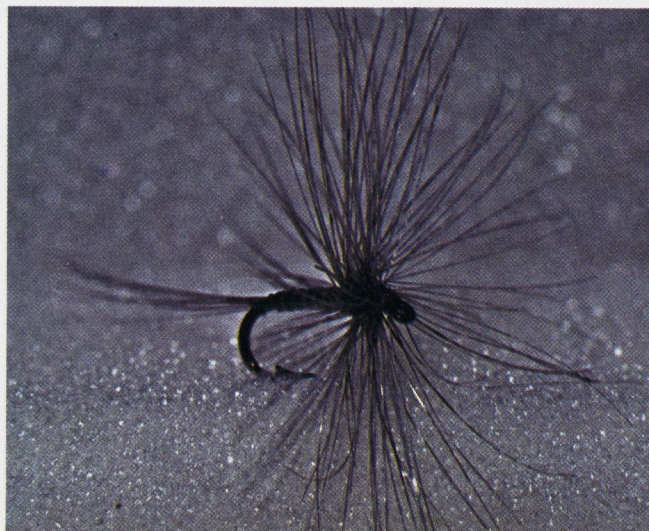
The main disadvantage of the hackle fly is that it works



A. *Hackle Fly*

best only with really good cock’s hackles. These are easy enough to find in the brown shades but rare in the grizzlies and very scarce in the natural blues. Another possible disadvantage of the hackle fly is that trout may occasionally prefer a more definite wing outline, especially when the naturals have very large or dark wings. I am not really sure of this, however. Sometimes when I have almost convinced myself that I needed a sharp wing outline, a friend of mine has done as well with plain hackle flies. He happens to have good natural blue necks.

B. *Big-Hackle Flies*. The names variant, spider, and skater are used as the hackles increase in size. (Variants sometimes have small wings, but this seems a useless decoration on a fly dominated by its hackles.) In all of these designs, the hackle is large in proportion to the hook and body, giving the fly exceptional lightness and high-riding qualities. Extra-light flies will move over the surface under a gentle wind or pressure, imitating a caddis fly, an egg-laying mayfly spinner, or even a dragonfly. Sometimes they produce spectacular success when “nothing else works,” but spiders and skaters are too big to be dependable when fussy trout are taking average-sized insects. They also demand unusually good hackles, and they require a lot of fly-changing on the river, as



B. *Big-Hackle Fly*

the big hackles lose their advantage when they get wet and soiled. Variants tied with hackles only slightly oversize are dependable, however.

C. Reverse-Tied flies. These are just normal hackle flies turned around, so that the hackle is at the bend of the hook and the tail at the eye. Wings can be added if wanted. The design has never been popular, but I think it has outstanding merits. It rides high, because the hackle supports the heavy bend of the hook. It is also nearly weedless. Most important



C. Reverse-Tied Fly

of all, this design — when dry and well oiled — keeps the point of the hook entirely out of the water. This gives perhaps the most realistic “light pattern” of all normal-sized dry flies. (Compare in an aquarium with a fly whose hook point penetrates the surface.) The disadvantage is that the design is very slightly more awkward to tie than a normal hackle fly. Some writers have said that reverse-tied flies have bad hooking qualities, but my experience has not shown this.

D. Shaped-Hackle Flies. These are used for low-riding imitations. Best-known design, dating back to the 1880's, is the bunched-hackle spinner, in which the hackle is wound normally and then pulled down with the tying silk to make two flat bundles on each side of the fly. The hackle can also



D. Shaped-Hackle Fly

be tied flat on the bottom only, leaving the top fringe for visibility. Bunched-hackle flies are realistic, effective, easy to tie, and durable. They even allow use of second-grade hackles and dyed duns. Hooking qualities are exceptionally good. Aside from the difficulty of seeing them on the water — which is always a problem with a low-riding fly — I know of no disadvantages.

E. Soft-Hackle Flies. These are like normal, full-circle hackle flies, but with a soft hackle feather from a game bird or other small wild bird. For wet flies, anglers have for centuries used such hackles. J. R. Harris — Irish fishing friend and author of the landmark *Anglers' Entomology* — showed me how to use soft hackles for dry flies, though he disclaims originality. I started experimenting with a lot of soft blue and



E. Soft-Hackle Fly

brown feathers, including some from various American quail and snipe. With modern floatants, the flies would float for a while, especially if stiff hackle fibers were used for the tail. Often, however, it was better to fish right in the surface film. No other fly design ever made such an improvement in my fishing. Trout take these ancient flies for nymphs, hatching duns, caddis pupae, midge pupae, and I don't know what else. Hooking qualities are especially good. Disadvantages are that the flies are fragile and, of course, poor floaters.



F. Traditional Winged Fly

Some of the small feathers are also hard to tie.

F. *Traditional Winged Flies*. Just like the simple hackle fly, but with wings tied in and hackle wound tightly on both sides of them. Most of the classic American dry flies are of this design, including the showy "fanwings." The design still works well, especially with soft wings of duck breast feather or hackle points. The trout may see a more definite wing outline. Personally, however, I usually prefer to leave the wings out unless they are needed to make the fly more visible to me. They add weight and complication, and sometimes the fly falls on its side.

G. *Thorax Duns*. Invention of Vincent Marinaro — and perhaps the first important American innovation in the art of imitating mayflies. When tied with wings clipped from the webby part of hackles, as Marinaro suggests, these give a



G. *Thorax Dun*

very clear wing outline, and the hackle near the middle of the body is well placed to support the flies' weight. The tie I use has two hackles wound at the large wings and then clipped flat at the bottom. This slight variation on the Marinaro theme was showed to me by Sid Neff, another fine Pennsylvania fly-tier. The design looks realistic and is more likely to land upright than most other winged flies. Still, in my hands, there are some failures to cock. The wings are also time-consuming to clip and tie in proper balance — too complicated for sizes below 18.

H. *Parachute Fly*. Has been around since before World War II, but I have not yet discovered its origin. The hackle is tied horizontally around the base of the wing and, if wound lightly, balances the fly while doing a good imitation of legs. Very often an inexpensive red, ginger, or dyed dun hackle will do for the "parachute." Many materials can be used for the wing, but for lightness, try fibers from a waterfowl feather or hen hackle, usually a natural blue dun. (Fortunately, hen hackles are fairly cheap, even in the dun shades.) If the fibers are simply stripped from the quill and wound on in a bunch, however, they easily mat into a thin strip when fishing. This can be avoided if the hackle is first wound near the tip of a pin, or at the front of an old hook with the eye cut off. When wound, the hackle is pulled forward and tied again just in front of the pin. Then clip the wound hackle between the two bindings, and it is ready to use as a wing on the real fly. The



H. *Parachute Fly*

fibers will be separated and fanned out. So tied, the parachute is the lightest of the patterns with separate wings. It cocks well and has a realistic mayfly shape, but wings and hackle are easily deformed in a trout's mouth.

I. *No-Hackle Flies*. These have ancient ancestors, but in improved modern dress, they are the offspring of Swisher and Richards' new book, *Selective Trout*. The no-hackle fly does not seem to be at its best in sizes larger than #18. During tests in Colorado, Pennsylvania, and on some Irish streams, the no-hackle dun in tiny sizes was a useful variation, especially when I could not get hackles in the right natural blue. One excellent feature is the small ball of dubbing which holds the tails firmly widespread. This idea can be applied to any dry fly. No-hackle flies are inexpensive to tie, though they must be carefully balanced. They are light (but low-riding) and have a sharp wing outline. On the negative side, they are a bit fragile, assuming use of quill wings. They do not imitate legs, which seem to leave prominent "light patterns" on the water, especially in large natural mayflies. And there are some failures to cock, even with widespread tails and wings set low on sides.



I. *No-Hackle Fly*



The author, a U. S. State Department official in Dublin, establishes diplomatic relations with an Irish brown trout

Caddis Imitations

There are three designs for caddis imitations — two new and one ancient — that cover most situations. Flies shown in the photograph all imitate a single, medium-sized species of the *Hydropsyche* genus. In addition, it is worth trying a reverse-tied fly or traditional winged fly. And where trout are jumping for flying caddis, a skater may be best.

A. *Flat-Wing Caddis*. This is another new American design, and again Vincent Marinaro had a large part in it. His jassid imitation made the flat-wing style popular. As far as I know, Ernest Schwiebert was first to apply it to Caddis flies, which are shaped a bit like a big jassid. In any case, Schwiebert showed the design to me. It is tied either with no



A. Flat-Wing Caddis

body, in the smallest sizes, or a furry body in the larger ones. A single hackle is palmered over the body from rear to front, then trimmed flat on top and bottom. A single wing is prepared by taking a soft feather, such as a partridge or crow body feather, and pulling it between two fingers coated with laquer or vinyl cement. When the feather is dry, its tip is trimmed to the silhouette of a natural caddis wing. This varies with the species, but a shallow vee usually gives the outline of the natural's two roof-shaped wings. This single wing, now rather dense and stiff, is tied flat over the top of the imitation. For durability, it can be cemented lightly to the body. The imitation is excellent and easy to tie, but fragile. It imitates only the motionless caddis and is best in the smaller sizes, say 14 and smaller.

B. *Hairwing Caddis*. Because the flat-wing caddis with a feather wing is fragile, I tried substituting the grizzled light-



B. Hairwing Caddis

and-dark-brown hair from a deer's face. Unlike hair on the deer's body, this is fine and short. It does not flare much when tied in. It can be made to form a neat wing silhouette in #16 and larger, though it does not give quite the sharp outline of the feather wing. Trout often take it well — and if it sinks, they continue to take it wet. When I left the hackle off entirely, the fly did not lose effectiveness. When the wing alone is greased, the body sinks, and this makes the best hatching-caddis imitation I know. The fly is simple, cheap, durable, and very dependable.

C. *Palmered Caddis*. Origins lost in the depths of time. My best tie has been a single palmer hackle over a dubbing body, then two larger hackles tied thickly at the head of the fly. There should be no tail, and wings seem to add little but



C. Palmered Caddis

weight. By way of example, try a hare's-ear body ribbed with gold wire, a ginger body hackle, and a mixed red and grizzly front hackle. Trout do not get a clear view of this one, so fine details may be unnecessary. The fly can be fished cross-stream on a long, tight line, and very gently twitched. This is much easier than drag-free floats, and the method can be very effective, but only when trout are used to seeing skittering "sedges." Last light of evening is the classic time. The palmer flies are simple and durable. They allow fast, easy fishing, even in bad light. Less time is lost changing flies and getting in position for careful floats. The leader need not be light, though it should be long. ■



Comes now English angler John Goddard
crying his case for . . .

Silk Lines and Long Leaders ***for certain types of fishing***

John Goddard

WITH THE ADVENT of the modern type of plastic-coated fly lines, the old-style silk lines have gone out of favor and are now only used by a few of the "old guard" in the angling ranks. This seems to be a pity since, under certain conditions I believe are still superior. Most anglers will probably disagree with me and would not wish to return to fishing with silk lines and the constant need for greasing, if required to float, combined with the need to dry them out after every trip.

Despite this they have one, if not two, highly significant advantages over plastic lines. Relative to modern lines of the same weight, silk lines have a lesser diameter and therefore create far less disturbance when presented on the water surface; and for the same reason, they are less fatiguing to use over a long period and they are simpler to control in cross winds.

The initial disadvantages pointed out above can to a certain extent be avoided. I have discovered by treating these lines

Well-known English angler-author John Goddard floats a silk line and long leader on a testy English brook. Photo courtesy of the author

FLY FISHERMAN



What are TROUT looking for?

From Opening Day on, trout have one thing on their minds . . . the search for food. The fly fisher who reads their daily menu and locates their cafeteria line is halfway there . . . the rest is a matter of designing or selecting a fly that reproduces that trout's diet most effectively. For the way to a trout's mouth is through its stomach.

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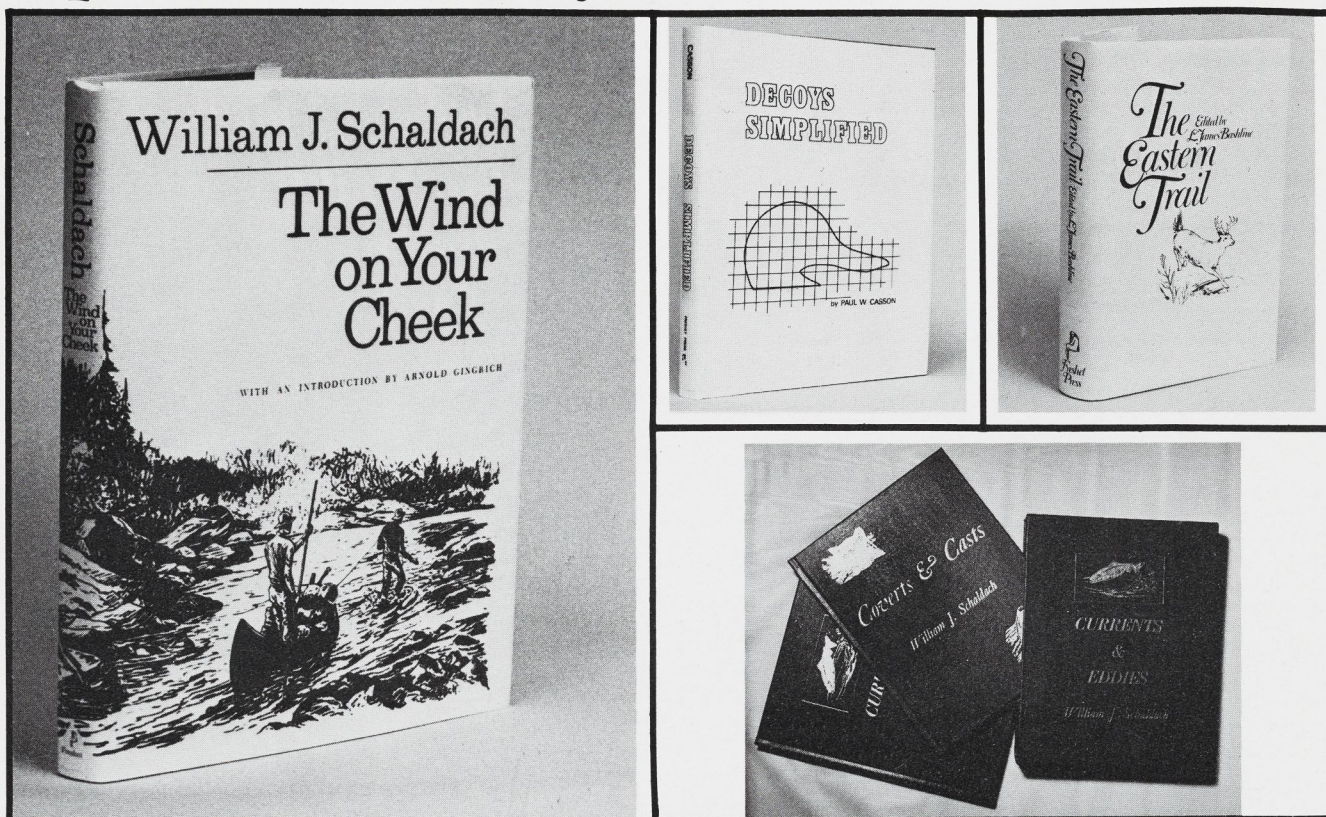
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A fly fisher plies his way along one of Ireland's food-rich limestone streams. Photos by Datus C. Proper.

any reasonable fly often works when hungry fish have to make quick decisions.

There were some food-rich streams in the Yellowstone area, where I grew up, the "spring creeks" and the Firehole river, for example. When I joined the Department of State and moved to Washington, D.C., I haunted the limestone creeks of southern Pennsylvania. A few hatches of mayflies are still dependable there. A big break was assignment to the American Embassy in Dublin, Ireland, the limestone cradle of classic fly-fishing. Hatches of mayflies and caddis flies here are impressive. In a month, I can get in more time over difficult, free-rising trout than I could in the United States during a whole season.

My search has been for the answer to two questions:

—what qualities in an artificial fly induce selective trout to take it?

—how can I reproduce these qualities in the flies I use?

These questions, obviously, are at the very core of fly-fishing. Even partial answers require many lifetimes of invention and observation. I tried to find the best ideas available and test them — while keeping track of my sources. (It's

remarkable how many "new tricks" were really described before 1920.) On both sides of the Atlantic, my approach has been to start with a traditional imitation of a specific fly, then tie new variations after every fishing day. Eventually, imitations of one insect can fill a whole fly box, and they do in the one illustrated. I would hardly need so many patterns just to catch fish, but the experiment has helped show the advantages and disadvantages of each style under different conditions. Often the best pattern for me turns out to be very different from standard patterns.

On the first question — what qualities in an artificial fly induce a trout to take it — the problem is to measure what looks good to the *fish*, not the angler. Here are my four suggestions on these basic qualities. They are listed in rank

Datus C. Proper, raised on the Firehole and the Madison and the Montana spring creeks, did much of his later angling on the limestone creeks of southern Pennsylvania while he was in Washington with the State Department. During this stint he was president of the Washington chapter of Trout Unlimited. He is now attached to the U. S. Embassy in Dublin, Ireland.



Proper with a typical Irish brownie

order, and this is important. Now, trout are not mechanical objects with programmed responses, and they sometimes switch the list around a little. Most of the time, flies with these four qualities at least work better than wild guesses, friendly advice from barefoot boys with bent pins, mysterious sun/moon tables, witchcraft, and other kinds of fly-box roulette.

What Qualities are Important in Flies?

1. *Behavior.* An artificial fly must act naturally before trout even look closely enough to detect other factors. And behavior depends in large part on good presentation with the right tackle, which is outside the scope of this article. The idea was summed up in 1857 by W. C. Stewart, who first championed upstream fishing: "... the nearer the motions of the artificial flies resemble those of the natural under similar circumstances, the greater will be the prospects of success." It is easy to forget this advice, because other qualities are so much easier to see and to imitate.

If good presentation alone is sometimes enough to catch trout, why go further? Because, frequently, almost *everything* has to be right. A trout that is 80 percent interested in your fly is still not going to take it.

Some behavior factors can be suggested in the design of the fly. A mayfly, for example, can be moving or drifting underwater as a nymph, hatching (usually in the surface film), riding fairly high as a dun, laying eggs as a mature spinner, or dying. Imitations can simulate these changes by varying weight, hackle stiffness, and hackle shape. Caddis flies often float peacefully, when they can easily be imitated by a new tie; and they can also buzz over the surface, when the imitation needs plenty of hackles — as in palmers and bivisibles. Details on different styles are given later. In deciding which one to use, the most important things to note are whether the natural fly is floating high or low, and whether it is motionless or moving on the water under its own power.

2. *Size.* This involves a compromise between good hooking qualities, which require a fairly large hook; and good imitations, which often need a small hook. Where the natural fly is large, it pays to try imitating the smallest members of any particular hatch — for example, the male duns of many mayfly species — and then to do it on the smallest possible hook, down to about #18. If the natural insect is extremely

small, however, it may be wise to try a larger-than-life-size imitation — especially since no one is making a properly designed hook below #18 or #20. Fortunately, trout sometimes settle for an underdressed size 20 imitation when the natural is a 24.

3. *Shape.* Some floating natural flies lie flat on the water, presenting only two-dimensions — a silhouette — to the trout. These are easily imitated today, although, oddly enough, it was only recently that some of the best "silhouette" designs were worked out. Where the naturals have high wings — like mayfly duns — the problem is three-dimensional and more difficult. There is still a hot argument over the need for wings on artificials. As far as I can make out, trout usually do see wings clearly, and imitations should suggest them. Perhaps the argument started over an unfortunate word. Flies dressed only with hackles are sometimes called "wingless," and some unwary fishermen have taken the description literally. In fact, however, the hackles themselves form a good representation of wings. Trout, being mostly illiterate, are not confused.

4. *Color.* Here is the most elusive quality of all. I am using the term very broadly, to include tone, brightness, and translucency, as well as basic color. Trout sometimes pay little attention to these things — which is just as well, because few standard patterns would ever work if anything like precise color were needed. On the other hand, I have fished rises when color was even more important than shape. The trout's color perception must depend on the angle and quality of light rather than on amount of light, as color selectivity is common in late-evening rises. Color perception may also relate to the angle at which the trout approaches the fly. But this is a big subject, and one about which we still know little. Many good anglers have been concerned mainly about the color of flies' bodies, which is certainly important if the body rides on the water. Hackle color has also been important for me, but not so important as hackle quality.

Good, stiff, shining hackles in the best colors are hard to find, and dyed ones are not very good in the delicate shades. For the man who ties his own flies, however, imitating body color is cheap. One method takes only a couple of dollars' worth of dubbing fur in different colors, and dyed shades work well here. A thorough mix is quickly prepared in a dry kitchen blender. The blend should then be spun on thread, wound on a hook, and checked by daylight, low against the sky, with the natural insect for comparison. Check to see how the fur changes color when treated with floatant and put in the water. If an angler does not want to take this trouble, he may do as well with plain hare's ear, peacock quill, or some other simple material in a color not too far off the natural.

THERE ARE MANY CRITICISMS of imitative flies, often based on misunderstandings. We should be modest enough to admit that our best artificial flies can be only rough suggestions of natural insects. When fly-tiers forget this, they sometimes copy characteristics of a captured fly with utmost care — forgetting the more important quality of behavior. Here, however, the fly-tier has gone wrong, not the basic idea. Simple imitations that behave naturally are usually more reliable than heavy, elaborate patterns.

Another criticism is that a trout's perception sometimes

seems to differ from that of a human. As an example, green-olive-bodied flies of the *Ephemerella* genus — true “Blue-Winged Olives” — are tricky on both sides of the Atlantic. In Pennsylvania last summer, trout rising for them refused my close imitation and settled for a grey fox-fur body, perhaps because the hackles were better. In Europe, the original Blue-Winged Olive mayfly is notoriously difficult to imitate. Sometimes a body of “natural” green-olive color will do, but often a bright orange or a pheasant-tail brown does better. Both of these variations do pick up colors present in some of the hatching duns, but in exaggerated form. Fortunately, trout and fishermen often agree, and a fly that looks right to the human eye is a reasonable starting point.

There is an important exception. When the water is fast and the trout are not selective, a fancy, high-floating dry fly with conspicuous wing may be best — say, a Hairwing Royal Coachman. Such a fly, however, is chosen for visibility to the angler, not appeal to the trout. It's hard to fish a dry fly well if it cannot be seen.

When a more careful approach is needed, it is worth trying to find a natural insect the trout are taking. Next step is to see how the insect fits the four qualities described above. A good look at the natural is worth any number of patterns read from a book.

If the insect is a floating mayfly or sedge, there is a choice of one of the following design variations. (There are many others, but I am at least sure from stream testing that all these are balanced and practical.) An angler wanting to imitate all four qualities of the natural will probably have to tie his own flies or order them from a good professional. Standard patterns, however, can often match two or three leading qualities. The same approach can be applied to all other insects, though there is not room here to cover stoneflies, midges, terrestrials, or nymphs before they begin to hatch.

Mayfly Variations

Mayfly imitations shown in the fly-box and in separate photos all suggest an “Olive” of the *Baetis* genus (not “Blue-Winged Olive,” which belongs to a different genus). The Olives are a good subject, as they are regionally abundant throughout the Northern Hemisphere.

A. *Hackle Flies*. This usually describes an ancient design, with cock's hackle forming a full circle behind the eye of the hook, a body (with ribbing if desired), and a tail. The hackle suggests both legs and wings of the natural, but hackle color should be chosen to match the more conspicuous wings. Often two hackles of different colors are needed. Today, simple hackle flies seem to be going a little out of vogue, but they gradually replaced “winged” flies in the early years of this century. Effectiveness of the simple patterns was widely admitted, but some anglers complained that they were unsporting! Everything goes in cycles.

Hackle flies are simple to tie, durable, and light. They float for a long time with little attention. Perhaps most important, plain hackle flies almost have to land correctly on the water, because any position is about equally good. Winged flies should “cock” — land on the water with wings uppermost — and sometimes they do not, especially if the fly is allowed to float down to the surface naturally on a loose leader.

The main disadvantage of the hackle fly is that it works



A. *Hackle Fly*

best only with really good cock's hackles. These are easy enough to find in the brown shades but rare in the grizzlies and very scarce in the natural blues. Another possible disadvantage of the hackle fly is that trout may occasionally prefer a more definite wing outline, especially when the naturals have very large or dark wings. I am not really sure of this, however. Sometimes when I have almost convinced myself that I needed a sharp wing outline, a friend of mine has done as well with plain hackle flies. He happens to have good natural blue necks.

B. *Big-Hackle Flies*. The names variant, spider, and skater are used as the hackles increase in size. (Variants sometimes have small wings, but this seems a useless decoration on a fly dominated by its hackles.) In all of these designs, the hackle is large in proportion to the hook and body, giving the fly exceptional lightness and high-riding qualities. Extra-light flies will move over the surface under a gentle wind or pressure, imitating a caddis fly, an egg-laying mayfly spinner, or even a dragonfly. Sometimes they produce spectacular success when “nothing else works,” but spiders and skaters are too big to be dependable when fussy trout are taking average-sized insects. They also demand unusually good hackles, and they require a lot of fly-changing on the river, as



B. *Big-Hackle Fly*

the big hackles lose their advantage when they get wet and soiled. Variants tied with hackles only slightly oversize are dependable, however.

C. Reverse-Tied flies. These are just normal hackle flies turned around, so that the hackle is at the bend of the hook and the tail at the eye. Wings can be added if wanted. The design has never been popular, but I think it has outstanding merits. It rides high, because the hackle supports the heavy bend of the hook. It is also nearly weedless. Most important



C. Reverse-Tied Fly

of all, this design — when dry and well oiled — keeps the point of the hook entirely out of the water. This gives perhaps the most realistic “light pattern” of all normal-sized dry flies. (Compare in an aquarium with a fly whose hook point penetrates the surface.) The disadvantage is that the design is very slightly more awkward to tie than a normal hackle fly. Some writers have said that reverse-tied flies have bad hooking qualities, but my experience has not shown this.

D. Shaped-Hackle Flies. These are used for low-riding imitations. Best-known design, dating back to the 1880's, is the bunched-hackle spinner, in which the hackle is wound normally and then pulled down with the tying silk to make two flat bundles on each side of the fly. The hackle can also



D. Shaped-Hackle Fly

be tied flat on the bottom only, leaving the top fringe for visibility. Bunched-hackle flies are realistic, effective, easy to tie, and durable. They even allow use of second-grade hackles and dyed duns. Hooking qualities are exceptionally good. Aside from the difficulty of seeing them on the water — which is always a problem with a low-riding fly — I know of no disadvantages.

E. Soft-Hackle Flies. These are like normal, full-circle hackle flies, but with a soft hackle feather from a game bird or other small wild bird. For wet flies, anglers have for centuries used such hackles. J. R. Harris — Irish fishing friend and author of the landmark *Anglers' Entomology* — showed me how to use soft hackles for dry flies, though he disclaims originality. I started experimenting with a lot of soft blue and



E. Soft-Hackle Fly

brown feathers, including some from various American quail and snipe. With modern floatants, the flies would float for a while, especially if stiff hackle fibers were used for the tail. Often, however, it was better to fish right in the surface film. No other fly design ever made such an improvement in my fishing. Trout take these ancient flies for nymphs, hatching duns, caddis pupae, midge pupae, and I don't know what else. Hooking qualities are especially good. Disadvantages are that the flies are fragile and, of course, poor floaters.



F. Traditional Winged Fly

Some of the small feathers are also hard to tie.

F. *Traditional Winged Flies*. Just like the simple hackle fly, but with wings tied in and hackle wound tightly on both sides of them. Most of the classic American dry flies are of this design, including the showy "fanwings." The design still works well, especially with soft wings of duck breast feather or hackle points. The trout may see a more definite wing outline. Personally, however, I usually prefer to leave the wings out unless they are needed to make the fly more visible to me. They add weight and complication, and sometimes the fly falls on its side.

G. *Thorax Duns*. Invention of Vincent Marinaro — and perhaps the first important American innovation in the art of imitating mayflies. When tied with wings clipped from the webby part of hackles, as Marinaro suggests, these give a



G. *Thorax Dun*

very clear wing outline, and the hackle near the middle of the body is well placed to support the flies' weight. The tie I use has two hackles wound at the large wings and then clipped flat at the bottom. This slight variation on the Marinaro theme was showed to me by Sid Neff, another fine Pennsylvania fly-tier. The design looks realistic and is more likely to land upright than most other winged flies. Still, in my hands, there are some failures to cock. The wings are also time-consuming to clip and tie in proper balance — too complicated for sizes below 18.

H. *Parachute Fly*. Has been around since before World War II, but I have not yet discovered its origin. The hackle is tied horizontally around the base of the wing and, if wound lightly, balances the fly while doing a good imitation of legs. Very often an inexpensive red, ginger, or dyed dun hackle will do for the "parachute." Many materials can be used for the wing, but for lightness, try fibers from a waterfowl feather or hen hackle, usually a natural blue dun. (Fortunately, hen hackles are fairly cheap, even in the dun shades.) If the fibers are simply stripped from the quill and wound on in a bunch, however, they easily mat into a thin strip when fishing. This can be avoided if the hackle is first wound near the tip of a pin, or at the front of an old hook with the eye cut off. When wound, the hackle is pulled forward and tied again just in front of the pin. Then clip the wound hackle between the two bindings, and it is ready to use as a wing on the real fly. The



H. *Parachute Fly*

fibers will be separated and fanned out. So tied, the parachute is the lightest of the patterns with separate wings. It cocks well and has a realistic mayfly shape, but wings and hackle are easily deformed in a trout's mouth.

I. *No-Hackle Flies*. These have ancient ancestors, but in improved modern dress, they are the offspring of Swisher and Richards' new book, *Selective Trout*. The no-hackle fly does not seem to be at its best in sizes larger than #18. During tests in Colorado, Pennsylvania, and on some Irish streams, the no-hackle dun in tiny sizes was a useful variation, especially when I could not get hackles in the right natural blue. One excellent feature is the small ball of dubbing which holds the tails firmly widespread. This idea can be applied to any dry fly. No-hackle flies are inexpensive to tie, though they must be carefully balanced. They are light (but low-riding) and have a sharp wing outline. On the negative side, they are a bit fragile, assuming use of quill wings. They do not imitate legs, which seem to leave prominent "light patterns" on the water, especially in large natural mayflies. And there are some failures to cock, even with widespread tails and wings set low on sides.



I. *No-Hackle Fly*



The author, a U. S. State Department official in Dublin, establishes diplomatic relations with an Irish brown trout

Caddis Imitations

There are three designs for caddis imitations — two new and one ancient — that cover most situations. Flies shown in the photograph all imitate a single, medium-sized species of the *Hydropsyche* genus. In addition, it is worth trying a reverse-tied fly or traditional winged fly. And where trout are jumping for flying caddis, a skater may be best.

A. *Flat-Wing Caddis*. This is another new American design, and again Vincent Marinaro had a large part in it. His jassid imitation made the flat-wing style popular. As far as I know, Ernest Schwiebert was first to apply it to Caddis flies, which are shaped a bit like a big jassid. In any case, Schwiebert showed the design to me. It is tied either with no



A. Flat-Wing Caddis

body, in the smallest sizes, or a furry body in the larger ones. A single hackle is palmered over the body from rear to front, then trimmed flat on top and bottom. A single wing is prepared by taking a soft feather, such as a partridge or crow body feather, and pulling it between two fingers coated with laquer or vinyl cement. When the feather is dry, its tip is trimmed to the silhouette of a natural caddis wing. This varies with the species, but a shallow vee usually gives the outline of the natural's two roof-shaped wings. This single wing, now rather dense and stiff, is tied flat over the top of the imitation. For durability, it can be cemented lightly to the body. The imitation is excellent and easy to tie, but fragile. It imitates only the motionless caddis and is best in the smaller sizes, say 14 and smaller.

B. *Hairwing Caddis*. Because the flat-wing caddis with a feather wing is fragile, I tried substituting the grizzled light-



B. Hairwing Caddis

and-dark-brown hair from a deer's face. Unlike hair on the deer's body, this is fine and short. It does not flare much when tied in. It can be made to form a neat wing silhouette in #16 and larger, though it does not give quite the sharp outline of the feather wing. Trout often take it well — and if it sinks, they continue to take it wet. When I left the hackle off entirely, the fly did not lose effectiveness. When the wing alone is greased, the body sinks, and this makes the best hatching-caddis imitation I know. The fly is simple, cheap, durable, and very dependable.

C. *Palmer Caddis*. Origins lost in the depths of time. My best tie has been a single palmer hackle over a dubbing body, then two larger hackles tied thickly at the head of the fly. There should be no tail, and wings seem to add little but



C. Palmered Caddis

weight. By way of example, try a hare's-ear body ribbed with gold wire, a ginger body hackle, and a mixed red and grizzly front hackle. Trout do not get a clear view of this one, so fine details may be unnecessary. The fly can be fished cross-stream on a long, tight line, and very gently twitched. This is much easier than drag-free floats, and the method can be very effective, but only when trout are used to seeing skittering "sedges." Last light of evening is the classic time. The palmer flies are simple and durable. They allow fast, easy fishing, even in bad light. Less time is lost changing flies and getting in position for careful floats. The leader need not be light, though it should be long. ■



Comes now English angler John Goddard
crying his case for . . .

Silk Lines and Long Leaders ***for certain types of fishing***

John Goddard

WITH THE ADVENT of the modern type of plastic-coated fly lines, the old-style silk lines have gone out of favor and are now only used by a few of the "old guard" in the angling ranks. This seems to be a pity since, under certain conditions I believe are still superior. Most anglers will probably disagree with me and would not wish to return to fishing with silk lines and the constant need for greasing, if required to float, combined with the need to dry them out after every trip.

Despite this they have one, if not two, highly significant advantages over plastic lines. Relative to modern lines of the same weight, silk lines have a lesser diameter and therefore create far less disturbance when presented on the water surface; and for the same reason, they are less fatiguing to use over a long period and they are simpler to control in cross winds.

The initial disadvantages pointed out above can to a certain extent be avoided. I have discovered by treating these lines

Well-known English angler-author John Goddard floats a silk line and long leader on a testy English brook. Photo courtesy of the author

FLY FISHERMAN



WHAT MAKES A TROUT STREAM BEST?



**Datus C.
Proper**

THE BEST STREAM is the one with the most trout, and my 11-year-old brooks no doubts. Doesn't everyone fish here? Well, they would if they had any sense.

Scotty wades into Henrietta Creek, tucks the butt of my fly rod under the cuff of his shirt, and casts (sort of) where riffle enters pool, or where Henrietta stops her chatter under a dark bank. Drag is no problem because his casts have plenty of slack in them. When white wings float in just the right place – the place where I have been trying to draw an X on the water and show it to my boy – a trout usually does something. If Scotty does not notice, I yelp. He has been instructed to strike at yelp as well as splash. Little brook trout are the fastest and he misses many of them. Bigger fish, mostly rainbows, are easier. The browns are rarely interested but the natives inhale the fly and won't let it go, even when Scotty pauses to argue that this time I am surely imagining the rise.

There is something wayward about a child catching long cutthroats on a dry fly and releasing them. He ought to be snaffling six-inch brookies on a worm and carrying them to his mom in a fern-lined creel, but he's tall enough to sneak books off the adult shelves. Trout fishing literature and certain

other fantasies should be kept away from minors.

He will discover later that the best stream is the one with the most *big* trout. He will float a river with so many of them that the skipper runs a covert operation, as if he were smuggling ammunition to the *contras*. Scotty will slither through the willows, peer down and watch the molecules resolve into a trout so large that he will forget the other things teenagers think about. He may even catch the fish; I did. Fishermen seldom forget such trout and biologists never do. Biologists are required to be objective, which means measuring things. Biomass can be measured. It is most concentrated in supermarkets and after that, usually, in big even-tempered rivers that flow from the depths of reservoirs. Such streams are not quite natural and not quite beautiful, but they are sublime – super natural, in the words of a Canadian advertising slogan.

Edward R. Hewitt's most-cited opinion is that the fisherman has three ages: when he wants to catch all the fish he can, when he strives to catch the largest fish and when he studies to catch the most difficult fish he can find. This works, as far as it goes. I gave four years to one stream that guarded its best fish as bees guard their queens.

The Meath Blackwater flowed through farmyards but the trout were the wildest ever, made so by pike and otters and centuries of Irishmen fishing *worrums*. The big fish were selective. To fool them we got up early in the mornings and sat down to our vises, calling on the genies in pots of strong tea to tie better caddisflies. That was the fun of it. Some fish are difficult because they are stupid. Brown trout are difficult because they are not as stupid as anglers. It is a good difficulty because it has causes, effects and solutions, when we are clever enough to find them.

If I could choose a week now on any stream, the Meath Blackwater would still be the one, which would make it best of all except that it's gone. We killed it: not we anglers but we humans. I knew it would die before me, and fragility draws a kind of desperate

love that is stronger than intellectual games. So Hewitt did not identify the final stage of a fisherman after all.

The best stream still living is the one that has survived the most humans. Transmigrated anglers, however, are not as easy to measure as biomass; their quantification awaits a more sensitive spectrometer. Meanwhile you can hear them whispering on the Itchen if you study to be quiet. A last snipe winnows, the sky fades behind red clouds, and there is an evening rise of several things, including Izaak Walton from Winchester Cathedral. You might interest him in a Dun Fly: its age was already measured in centuries when he wrote about it in 1653. The trout incline toward Skues's Sherry Spinner, which is old enough for me. We Yanks know how to welcome ghosts when we get the chance.

Another kind of thirst comes from a steep hike and wants water innocent of history. The canyon is as old as geology, as young as Eden. Crowds do not muddy the currents because there is little for them above the falls. What I remember best between trips is the way riffles spill into pools. An ice-age boulder may be responsible for backing up the water, but a log peeled in the spring runoff can do it too, and sometimes the stream just runs out of breath. Reflections from little waves fade into darkness and depth. Limbs overhang the outside of the pool's curve. When some of my friends were being held hostage, I resolved that if I were ever in their place I would cling to these images. I would paint them on the bounds of my spirit in the way some people paper office walls with outdoor scenes.

For most, such pictures are pretty in a general way, but flat. An angler sees another dimension under that imaginary X on the water – the secret place I try to show to my son. It is as good to see as a soul, and as elusive. Look close: rays from a distant lens bounce off cliffs, filter through leaves, and focus dimly on a native trout. It is surrounded by concentric rings. Of these the first is speckled skin; the last is sky; in between are mountains and songs of veeries and cool running water.

This stream is best.



WHEN THE SUGGESTION was raised of having several people write about what makes a trout stream best, my academic and pedantic sensitivities sounded an immediate alarm.

What is meant by "best?"

Define and limit the term before it can be intelligently discussed was my reaction. Best is an overused and imprecise word in common usage. In its literal, superlative sense of the unparalleled – the attainment of the highest state of perfection, quantity, quality, or goodness – there can only be one best; others can only be better or good.

We are constantly exposed, however, to the Madison Avenue concept of "best" on television and radio and in newspapers and magazines, whereby we are told there can be *several* best products from soda pop and beer to automobiles. Thus, in common usage, "best" can assume quantitative, qualitative, collective, emotional, and pure hogwash characteristics. All of these might influence an angler's judgment for ranking rivers as good, better and best. Personal experience, background, interest, tastes, and preferences act in concert to influence a person's choice of a best river, similar to a choice of a best meal or a best restaurant.

These were some of the considerations I bounced around as I attempted to come to grips with my selection of the best trout streams in America. I also imagined what might be the train of thought of other writers confronted with making the choice.

The more quantitative thinkers might consider rivers that support the greatest biomass of trout per surface acre and/or the proportion of that biomass expressed in fish larger than a certain size. Such sites as sections of the Bighorn River, Montana; the Green River, Utah; and the Frying Pan River, Colorado, would certainly rank at the top of any list of biomass and proportional size statistics. I suspect, however, that none of the above rivers would be in consideration for best by those who are more influenced by their senses, heart and emotions rather than by cold logic generated by the mind. This

rejection would likely be in consideration of the lack of solitude and by the fact that these are all artificial fisheries created by the flow and temperature regimes regulated by massive concrete dams upstream. The reservoirs also act as assembly line food supplies pumping choice organisms to feed the trout in these tailwater fisheries.

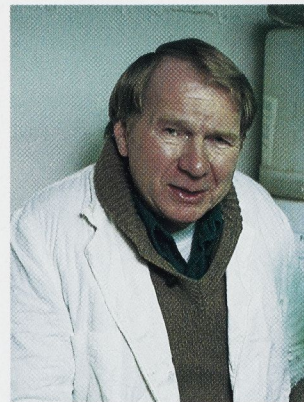
From a standpoint of quantitative best, tailwater fisheries can indeed be the best of the best, as witnessed by the recent world record brown trout in a tailwater fishery in Arkansas (waters to which no species of salmonid fish is native and none could have existed before a great dam was constructed and a large reservoir created). In comparison to natural, wild trout fisheries, tailwater fisheries might be considered analogous to a gigantic hatchery raceway. For this reason, I expect that the more sensitive and contemplative anglers will reject these superstar tailwater fisheries from their considerations of best rivers. They are more likely to be influenced by a gestalt interpretation of the total angling experience where the size, abundance, and catchability of the trout are important but secondary to the total sensory experience. The choice of the contemplative angler is likely to be the stream and associated landscape that most strongly recharges the spiritual battery – there is more "there" there for them or, as Herbert Hoover once put it, more "soul washing."

My personal choices were influenced by a seminar I conducted last semester on conservation biology – the preservation of natural diversity. The seminar was concerned with nature's diversity – diverse ecosystems, species and races of a species – in a rapidly changing world. This caused me to reflect on the significance of tiny, isolated headwater streams that have served as refugia for remnants of the once great natural diversity found among our native trouts.

The identification of descendants of the original Pyramid Lake cutthroat trout from a tiny stream on the Nevada-Utah border was a most significant event for the preservation of the natural diversity of the cutthroat trout spe-

WHAT MAKES A TROUT STREAM BEST?

Robert J.
Behnke



cies. This tiny stream would be deserving of a best award for serving as a refuge. The significance of this stream and of the trout it nurtures can be better appreciated when it is realized that this particular trout population is the direct descendant of the ancestral Lahontan cutthroat trout that roamed giant Lake Lahontan during glacial times. The race became restricted to Pyramid Lake after Lahontan desiccated; it had been believed extinct since 1938. The Pyramid Lake race of cutthroat trout has the hereditary basis to attain the largest size of any form of cutthroat.

I might also mention the significance of the miniscule creek from which I discovered a population of pure greenback cutthroat trout many years after this subspecies was declared extinct. Because of numerous transplants and establishment of several new populations from the original source, it is once again possible to observe a living greenback trout in all of its splendor.

Other streams which come to mind are intermittent desert flows in northern Nevada and southern Oregon, inhabited by remnants of the arid lands redband trout. I've caught these environmentally-tolerant fish on dry flies in water of 83 degrees Fahrenheit – and they put up a great fight.

I suspect that the considerations I would use for America's best trout streams are quite different from other anglers. My best streams and their trout are not best in size or abundance of fish, but as refugia for natural diversity of our native trouts.



BY DATUS C. PROPER

WHERE THE ROAD ENDS

There are blue grouse up Phoenix Creek. A rancher told me he saw them, hopping around tame as chickens, when he was hunting for lost sheep. Now Trooper understands that he and I have a search to make, too. How the dog knows is a puzzle. He can no longer hear the key turning in the gun cabinet or the shotgun clicking as it comes apart for traveling. His nose still works, though, and it must bring him some balm of hunting when the leather case opens. By the time I'm slipping the barrels and butt into their compartments, Trooper appears, and he's wagging his tail before the brass lock clicks shut. That's faster than he moves for his food.

Where the road ends, Trooper jumps from his cage like the puppy I remember. Then he stays close. One thing he's learned in thirteen years is that nothing happens till the gun is back together. He watches me hook the barrels into the breech, snap on the fore-end, and try a practice swing. The gun has outlasted three or four men who swung it like this, and it will see me out, too. A good shotgun is a comfort; it feels lively and smells like an old friend and never has to be buried.

For Trooper, any place that's not paved is a good place to hunt. I have choices, however, and know that we will pay for the wrong one. The grouse like aspens for raising their young. They also like meadows for grasshoppers, clearcuts for clover, old logging roads for gravel, and dark-timbered foothills for altitude. Mostly they like quiet, a lot of quiet. We want that, too.

We set off up the creek bottom because both blue and ruffed grouse are there in summer. Anyhow, it's not as steep as the alternatives. This is early fall and the brush along the creek feels as hot as West Africa. Willows clog the water and aspens fight with wild roses for the banks. Trooper goes under and I go over. It's harder, but I don't mind; my scar tissues overlap, like his, into a kind of leather. A hunt that is easy on the brain and tough on the body is what we need. It is mechanical and sweaty; twisting wherever the glaciers gouged out the creek 11,000 years ago. A

The author is a Montana hunter who has long enjoyed the pursuit of blue grouse.



Perfect places are found by accident and paid for in sweat.

red scratch below my sunglasses stings enough to remind me of what we're doing, and why we're here.

So much for grouse and aspen-lined creek bottoms. After a mile or two this one shrinks and we must turn upward, but everywhere is upward. Upward is what mountains are about. The south-facing slope, though, has few trees, because the sun is too strong. The north slope, where the sun strikes gently, has more moisture and trees, too many trees for me and Trooper, but perhaps just enough for a blue grouse. At the edge, the brush looks good—thick enough to shelter a bird and thin enough that I might see it flying—so we cross the creek and work along that edge. Trooper points.

I loop around, and come in ahead of Trooper, as quietly as a clump of raspberries permits. He is always honest but sometimes, grouse being what they are, he points where one has just been and is no longer. In that case his tail starts to wag a little. This time it doesn't. I kick the tangle of buffaloberry bushes where he is pointing, and nothing happens. I bend down to look and see a pale fan, twitching slowly. My retreat is without dignity. I like animals with black and white tails much less than Trooper. Noting my lack of courage, he breaks point and moves closer, intending to redeem me till the instinct grows so strong that he must point again, giving me time to grab his collar and drag him away. From his angle I see that our tormentor is a

ILLUSTRATED BY JOE CSATARI

where they were intended to go. Thus, bad guys from country C can buy a Certificate from country A, and present it to the manufacturer in country B. The guns are shipped to country A, as the Certificate states, but they are not unloaded there, courtesy of the ship's captain, who also likes American dollars. Instead, they remain on board while the ship goes on to country C, where the bad guys get them.

According to my arms-dealer source, American dollars are highly prized in the countries that make assault rifles, and if the money is there, the parties involved in these transactions are not fussy about the validity of End User Certificates. The one exception to this, he said, is Austria, which controls the AUG assault rifle with a vengeance.

Thus, drug dealers can be sure of an unlimited supply of cheap, full-auto assault rifles if and when the Congressional ban on semi-auto assault rifles goes through.

Now, back to politics. The 50 to 49 Senate vote produced great joy amongst anti-gunners, and much gnashing of teeth in the other camp. It was produced by a crossover vote. Senators Warner of Virgin-

ia and Packwood of Oregon, whose voting record was largely pro-gun, went with the ban. But a greater surprise was provided by eight Democratic Senators, all from states with large numbers of gun-owning voters and strong shooting traditions. These Senators who, I'm told, had all promised their constituents that they would support gun ownership, are: Benton of Texas, Burdick of North Dakota, Byrd of West Virginia, Gore of Tennessee, Harkin of Iowa, Nunn of Georgia, Rockefeller of West Virginia, and Sasser of Tennessee.

One person I talked to, a particularly astute Washington observer, said: "Benton, Gore, and Nunn all have their eye on the Presidential race in 1992, and they've decided that for a Democratic candidate, a pro-gun vote is the wrong vote to cast."

He may be right; usually he is. In the meanwhile, if you are from one of the states represented by these eight Senators, you will have to decide whether their vote was a) a decision to do what was best for the country as a whole, or b) a sellout.

For us, the vote of these men is a warning. We cannot count on "safe" votes any more; Sarah Brady has pretty well taken

care of that. And we should remember that Mrs. Brady is not the only one who can put feet in the fire.

The Law, in Its Majesty . . .

The State of Maine has in its constitution an amendment stating that "... every citizen has a right to keep and bear arms, and this right shall never be questioned."

There is also a state law prohibiting a convicted felon from possessing a firearm. So far, all well and good, right?

Maybe not. Last year, according to *Down East* magazine, a habitual criminal (classed as a felon in Maine) sued the state, arguing that the amendment superseded the prohibition against felons owning guns. Superior Court Justice Stephen Perkins agreed with the bad guy, saying in effect, "Go thou and arm thyself; the law is with thee."

Except it wasn't, because the Maine Supreme Judicial Court overruled Justice Perkins. I don't think any of this comes as a surprise. We have long ago come to accept that the law may not have anything to do with justice, or common sense, or even sanity, but that it is, by God, the law . . . until it is changed by the next higher court.



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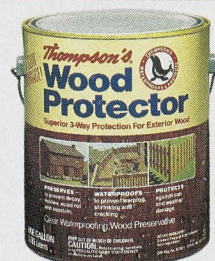


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porcupine and not a skunk—a mistake that is easier to make than you might suppose. Porcupines and skunks both run to tail. The rest of the creatures are tolerable, but the tails are devilish things the size of grizzly bears, and more abundant. All look somewhat alike, at first glance, when puffed up and ready to claim a victim back in the shadows. Trooper has the moral fiber to defend himself, but always loses when it's a porcupine. When it's a skunk, I lose too. We hope not to try grizzlies.

After we have regrouped, our withdrawal is orderly (as defeated generals always claim). We turn upward into the lodgepoles, where I might have a chance to see a porcupine before it pounces upon us.

In the lodgepole forest, most of the trees are dead. You do not see this from a distance because there are also live trees, thin and topped with blue-green and rooted so densely as to make whole mountains bristle like porcupines. Fallen among the living are ancestors mummified in the dry mountain air. Every eon or so a forest fire burns both living and dead, or a glacier carries them away. Meanwhile Trooper and I must climb over them. Here I have the advantage because my ancestors swung from trees and I have not entirely lost the knack. Trooper begins to wheeze.

We sit and wait. He will not live much longer, but I do not want to lose him this week, please.

Where we rest we can see the nether world of a chipmunk and no more. Within yards the standing trunks merge into walls. Overhead the tops do not quite obscure the sky; it is the only escape and has meaning only for winged things. At our feet, the leaves of the snowberry flame red and a few fruits glow ghost-white between them. The mummy lodgepoles cover everything else. They are guarded by chipmunks, and the imp in charge of the log on which I sit ventures out to scold. Trooper is rested enough to go sniffing after him, so it is time for us to climb on. We leave a world no man or dog has visited before and to which we hope never to return.

Near the top of the ridge the lodgepoles thin out. Trooper casts too far ahead, happy to leave purgatory. He stops, but not soon enough. A grouse rises to clear the trees and then arrows down toward the creek bottom. The bird is very big and blue. So grouse do like to be near aspens—say about 2,000 feet above them. It is a flight of seconds or a hike of hours.

There are, no doubt, other grouse, but a lot of mountain separates them, and I am not sure we will find the right place. Still,

we hunt the ridge with more hope than we had. The spine keeps sloping up to a rounded shoulder. There the lodgepoles yield to ponderosa pines, which have columns close enough for comfort and far enough for freedom. Douglas firs raise scattered spires. Distant peaks appear through the trunks as if on stained-glass windows. The big trees aged with the mountains; both belong here, but the tall, swaying choir of grass is unexpected. It seems part of some virgin prairie, not of ridge tops. The secret is that up here the grass is not crowded out by fallen trunks. Perhaps lightning caused a fire that spared the living and returned the dead to the soil, which is, after all, a better way to remember them. The ashes have nourished the soft stems, making them green in the shade and golden in the sun.

Iwould like, now, to meet some grouse, even the complaisant ones of mythology. Once in such a cover, while hunting with an older friend, I found fresh elk sign and told him that I hoped to shoot a six-point bull some day. At his ranch I had seen big sets of antlers bleaching on the corral, but none in the house. "Let's look for an old cock blue grouse," he said. "That's a *real* trophy." He gave no explanation but I had an idea of what he meant. Blues are the biggest of



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the beautiful grouse. Sage hens are bigger still, so big that they look like flying buffalo, and bison are anything but pretty.

Blue grouse also have a sense of place. I have seen perfect spots for other birds—abandoned New Hampshire orchards for ruffed grouse; weedy Nebraska corn for pheasants; alder trunks on Pennsylvania sky for woodcock. The problem has been lack of cooperation. I have paused and swung the old gun and willed birds to appear where they should, but they have refused, even when red maples were in conjunction with stone walls. Blue grouse perceive. When I decide exactly where I would like to be if I were a blue, there is a chance that the bird will agree. Scientists call this convergent evolution.

It is no great surprise, then, that Trooper comes to a point near the top of the knoll that crowns the ridge. A pale fan floats ahead of him, just over flowing grass, and I think: *porcupine again*. But then I think better. This is a fit place for chasing blues and the fan could be the tail of one of them, beckoning. I run to cut off the retreat and the bird pitches down the slope. Just as it disappears the gun goes off and leaves a mosaic of feathers in slanting afternoon sunbeams, a surrogate headstone that marks the end of a life and the beginning of a dinner for my wife and little

boy and me.

This is not an old cock grouse but a well-grown young one, heavy in the hand. It is too pretty to rumple in my game vest just yet, so I hold the big bird and sit on a ledge atop the knoll. Trooper sits too and looks with me at the blue grouse, at yellow aspens along the creek below, and at green-gold mountains on both sides. We look farther to the west across a valley fanned out like the grouse's tail. In the middle there is a winding spring creek with a cemetery at the bend, but I can't quite see it and Trooper doesn't understand. At the rim of the far valley there are more peaks. If you believe that a dog cannot profit from such a view, I wish you could watch Trooper's eyes. He may not know that a distant mountain is bigger than a porcupine, but that does not matter. He finds good in what he sees. For the grouse, the view and the escape route were the same thing, which is not a bad way to look at mountains, either.

Places right for me have appeared only two or three times—not as often as the perfect spots for birds. Such places are always at the end of sweaty work. I have found them by mistake; they elude searches. The junction pool in the Appalachians did not make itself known till I had paid several visits with another little boy. Blue

grouse knoll, however, makes its claim quickly. It shows me that nothing is better than this place of pine columns and fir spires and mountain windows on a ridge that no one else has had reason to climb. The grouse and Trooper and I found it. None of us knew what we were doing.

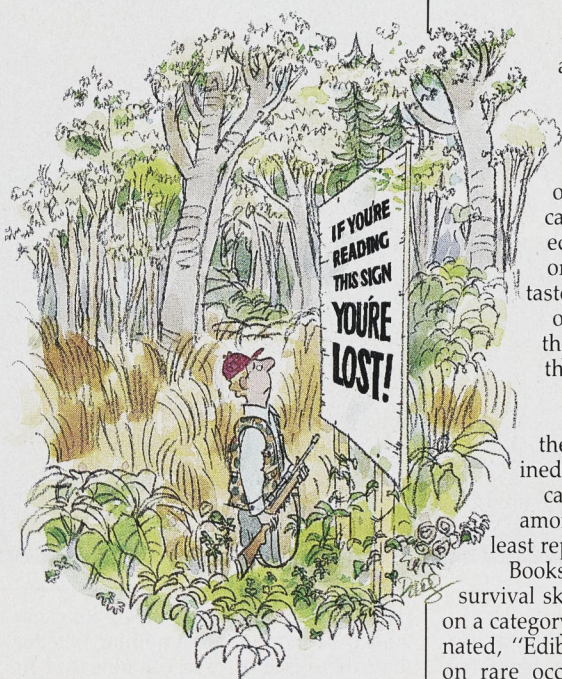
The two of us who are still living cannot sit long, because the sun is getting close to those peaks in the west. The air will cool and we will have to find a descent through black timber. But we have fired our salute.



BY TED LEESON

SURVIVAL

Anyone can get lost, but only those with years of experience can do it with a sense of style.



For a few of us, being lost in the woods is more than a rare occurrence—it's a way of life. I just chalk it up as one of those unfortunate accidents of nature, like having a wicked flinch or being born with the brain of a talk-show host, though not nearly as tragic. At any rate, I've resigned myself to getting lost and concentrate instead on hanging together until I'm found. And a lifetime spent waiting around to get rescued has taught me a good deal about wilderness survival.

One of the first things to realize about being lost is that food suddenly becomes a serious matter. It doesn't matter if you ate a fourteen course meal an hour before. The instant you sense you're lost, you'll be wracked with hunger and seized by a furious desire to consume your boots. It's a reflex, like the uncontrollable impulse to scratch your armpit or sneeze the moment a nice buck steps in view of your stand. But try to relax. While you might nibble a sock or handkerchief, devouring any of the bulkier articles of clothing is strictly an overreaction.

Ted Leeson lives in Oregon where he is able to practice the delicate art of getting lost.

In fact, there's no reason to be anxious about food at all, for out in the woods, amid nature's abundance, the world is your larder. I have it on good authority that of the 60,000 separate species of plants in the North American woods, almost a dozen are edible. True, most contain little or no nutritional value, and taste like the stuff you scrape out of a drain, but they are nonetheless edible—which is to say that eating them won't kill you.

The flip side of this happy thought, however, is that the remaining 59,988 species are inedible, and ingesting them can cause all sorts of side effects, among which death is one of the least repugnant.

Books devoted to woodcraft and survival skills lavish a special attention on a category of wild plant usually designated, "Edible Roots and Tubers." Only on rare occasions have I located, exhumed, and consumed an edible root or tuber, since by some incredible coincidence, I never seem to get lost while carrying the pick, shovel, and case of dynamite generally required to mine these culinary nuggets.

In all fairness, however, I should say that the first time I was lost in the Allegheny Mountains of West Virginia, I survived for five days eating the root end of a plant locally known as "ramp"—a particularly virulent cross between wild onion and garlic. At noon on day six, a party of hikers followed their noses to what they believed would be an Italian restaurant and found me instead. You just can't count on this type of thing, though, so it's best to forget about roots and tubers altogether.

The real trick in survival is to stay a) not hungry, and b) not dead—both at the same time. This is best achieved by following

a few simple Survival Food Rules:

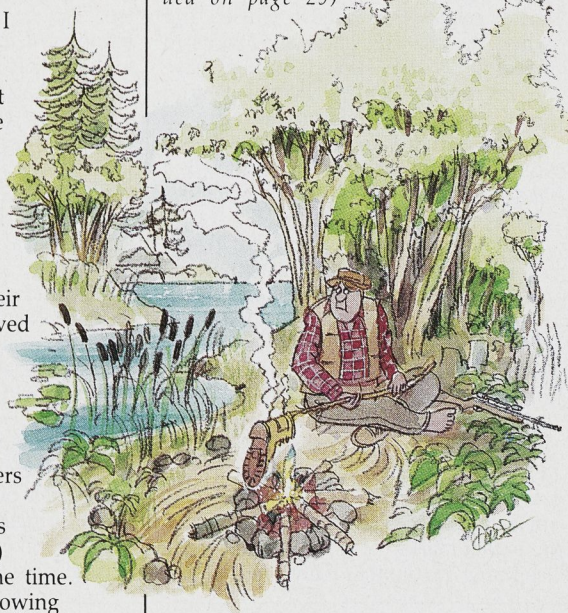
Rule 1: The harder it is to get hold of, the more likely it is to be food—rabbits, fish, and deer for example. Conversely, things easily captured, like stones, dirt, and slugs, offer little in the way of nutrition.

Rule 2: In general, the operative principle for wilderness food is precisely the opposite that of domestic fare. In everyday life, if a food tastes bad, it is probably good for you, like oat bran and bean sprouts. In the wild, if something tastes bad, it's probably bad for you, like stones, dirt, and certain tubers.

Rule 3: Don't eat anything that smells funny unless it's ramps.

Once you're well fed, you may want to see to other survival matters that may increase your safety and comfort. Many useful implements can be fashioned from materials found in the wild—like birchbark. It is a well-established fact of woodcraft that you can make anything at all out of birchbark—hats, canoes, and authentic frontier souvenirs. Not long ago I learned of a hunter who was lost for seven weeks, during which time he built an entire '66 Volkswagen Beetle out of birchbark and was just finishing up the gas station when he was rescued.

Doubtless a number of other barks and fibers are (Continued on page 29)



ILLUSTRATED BY GLENN DODDS

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ISSUES

Wildlife policies
anything but naturalBY DATUS PROPER
Special to The Times

YELLOWSTONE Park is Eden. But do not get out of your car and look too closely. Some of the native plants and animals that used to be common are hard to find now. The park's elk and bison have overpopulated their range and diminished its biodiversity. The problem in Eden is that its managers are afraid to manage.

The official oxymoron for a hands-off policy is "natural regulation," a spiritual concept signifying a humble recognition that nature does many things better than humans. Alas, not even Yellowstone is big enough, or natural enough, to do without rational oversight.

I grew up in the park, cleared its trails, fought its fires and surveyed its campgrounds. I therefore appoint myself Adam (not an elective office) and provide this State of Eden message. It starts with a personal report on one of the favorite fishing holes of my youth.

You would not bother to fish this stretch of lower Glen Creek today because it is shallow, sunburned and spread wide over bare gravel. However, nature has mechanisms to cure the damage: willows close in, stabilize the banks, narrow the stream, and yield in time to pines and aspens just like the ones that used to be there. But the overabundant elk eat the willows and aspens as soon as they sprout.

The degradation of lower Glen Creek is symptomatic of a park that today supports between 20,000 and 60,000 elk, depending on whose estimate you accept. There are also about 3,500 bison. Whatever the exact numbers, almost everyone agrees that they are larger than at any time in recorded history.

The park's "research interpreter" tells the press that grazing by these native wildlife species is having "a profound positive effect" on the northern range — but I see that the willows and aspens are no longer reproducing successfully. I find none of the beavers and ruffed grouse that used to live on willows and mixed-age aspens. I discover that my old fishing holes are in trouble.

I wonder about the difference, if any, between a research interpreter and a spin-doctor. Administrators of other nature reserves across the country are trying as hard as those in Yellowstone to duck the issue of overabundant big game. A problem so widespread must be caused by perverse incentives.

The incentives are clear. A manager professing faith in "natural regulation" of wildlife makes the voters feel good. One proposing reduction of the herds would risk trouble in Congress.

The core problem is not the politicians and bureaucrats. The problem is us, the voters. Most of us are exposed to wild animals mainly through television programs. The gap between nature-lovers and nature has never been so wide. The apparent public consensus is that nature is sacred, Yellowstone's nature is especially sacred, and it should be managed accordingly — which is to say that it should not be managed at all.

I should think that a manager would look to biodiversity and water quality, in addition to forage, because there is more to Yellowstone than ungulates. If Glen Creek were on a private ranch, the owner would surely be advised to reduce his herd without further studies.

It would seem wise to err on the side of caution. Big-game species, have a way of turning into their own worst enemies. This is arid country with thin topsoil and a short growing season and not an easy ecosystem to restore.

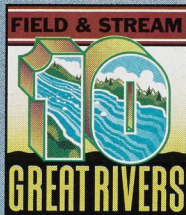
In most of the world, there remains only one practical way to control populations of big game: hunting. It would work in Yellowstone Park too, at no cost to the taxpayers, and perhaps even at a profit.

Somebody in Montana had a brilliant idea. He got Native Americans involved with the bison. State wardens did the actual shooting, but then Indians processed the carcasses, transported them back to the tribes, and talked eloquently to the media.

Native Americans no longer live in the park, but there are plenty near Yellowstone, and they seem eager to help. They may provide less than an ideal solution, but real-world solutions are seldom ideal. If nobody can come up with a better idea, let's call in the Indians. My old fishing holes need help.

Datus Proper is a hunter, writer and participant in the Gallatin Writers Group.

SIXTH IN A SERIES



THE

Yellowstone

by Datus Proper

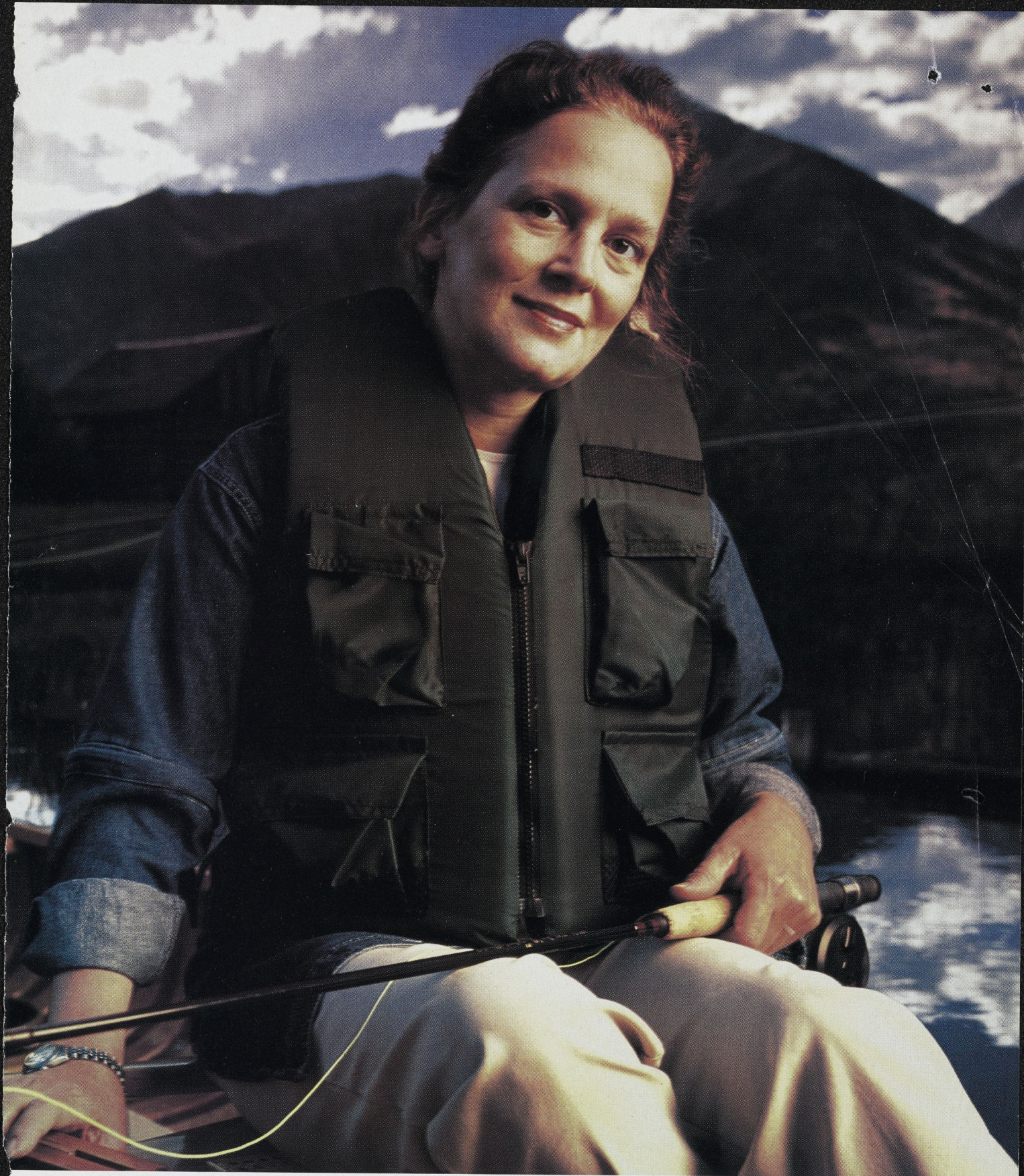
RIVER

NOT JUST ANOTHER DAMMED RIVER

The author (wearing vest) and guide make a quick equipment check before driving to the launch area for a morning float trip down the Yellowstone.



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WHERE THE YELLOWSTONE RIVER WAS ONLY A CREEK, UP NEAR TWO-OCEAN PASS, NATIVE TROUT HOVERED GOLDEN-BRIGHT OVER GRAVEL AND I WAS WATCHING THEM WHEN I SHOULD HAVE BEEN STEADYING MY HORSE. SHE SLIPPED ON A BOULDER. MY BOOT WENT THROUGH A STIRRUP, AND WHEN THAT DIZZY MARE GOT BACK ON HER FEET, I WAS BOUNCING ALONG BEHIND. SHE WOULD HAVE WORN ME DOWN TO BARE BONES EXCEPT THAT ANOTHER WRANGLER NAMED JOHN ARMFIELD RISKED HIS NECK TO HEAD HER OFF.

And then on our return trip, down where the river runs into a wide spot called Yellowstone Lake, that same malevolent mare turned my \$30 Granger rod into bamboo toothpicks while I was cutting logs that had fallen on the trail. Look closely if you travel that country. You might see a weathered aluminum rod case wrapped around a lodgepole pine.

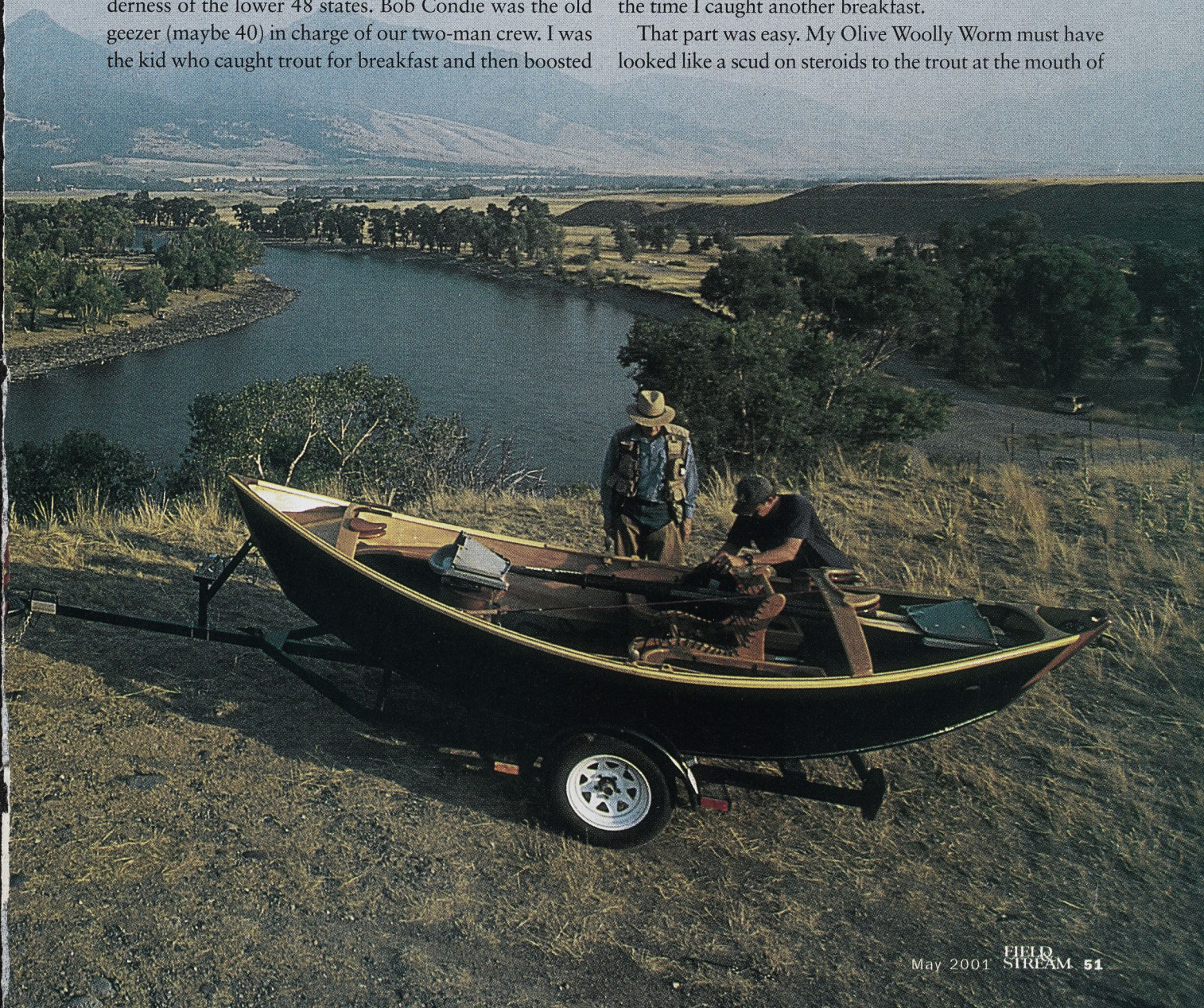
The next summer found me back on the upper Yellowstone with a steady horse and the world's best job: packing supplies to patrol cabins in the most remote wilderness of the lower 48 states. Bob Condie was the old geezer (maybe 40) in charge of our two-man crew. I was the kid who caught trout for breakfast and then boosted

packs onto eight mules that were smarter than I was. They settled down for Bob, though, when he said he would feed them to the bears.

I thought he was kidding.

Next morning our cabin's window went dark, and before we could pull on our boots, we had company. It was just a black bear, but it gobbled our trout fried in bacon fat. The mules kicked up a fuss and the horses broke out of the corral and I wanted to run them down, but Bob said they could run faster than me and they'd be back anyhow by the time I caught another breakfast.

That part was easy. My Olive Woolly Worm must have looked like a scud on steroids to the trout at the mouth of





The **world** has
changed, but the
Yellowstone still
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600 miles.

Yellowstone is a key word in American mythology. It is the mother river of the national park system, giving its name to our country's first national park. It is a state of mind, a symbol of all that remains wild and free. And it is a reminder of all that has been lost. The author (*far right*) has fished the Yellowstone for nearly 50 years.



the river, and within minutes I had two cutthroats big enough to feed two hungry men.

The rest of the world has changed in the years since then, but the descendants of that pesky bear still feed on native trout and the Yellowstone River still runs free—free in its headwaters, free in the wide spot called Yellowstone Lake, free through the painted canyon downstream, and free in the long warmwater stretch that Capt. William Clark explored in 1806.

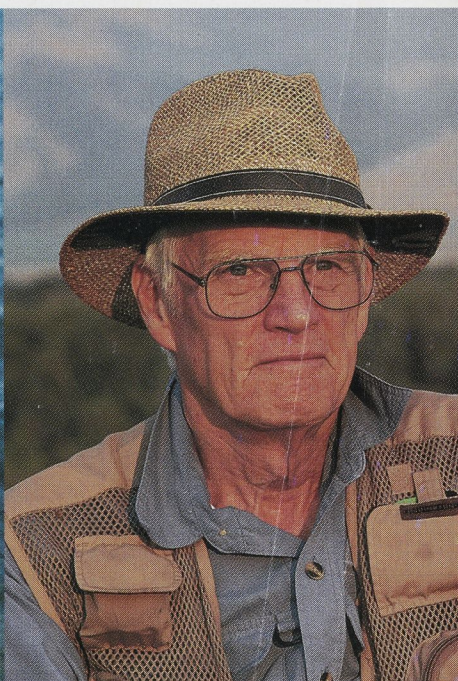
Capt. Clark's route still makes a splendid float trip, for those who are good at sitting. I'm not, so I pick a stretch of the river that can be waded if the water is low.

It was not quite low enough, one July day in the 1960s, but Mert Parks and I went fishing anyhow. Mert owned

way to tour the Grand Canyon of the Yellowstone.

Some weeks later I did it the right way, skidding down the canyon wall on two feet and the seat of my jeans, and when I got to the bottom, the trout were waiting. But they were not like the lazy fish in Buffalo Ford. The canyon cutthroats were pale as the mist and strong as the current, and I wondered if these luminous beings had evolved to feed on smaller trout washed over the falls. I still wonder—but not enough to go down there again.

The view from the rim is better anyhow, if you don't mind crowds. Old folks climb from their Buicks, stretch stiff muscles, and walk to Artist's Point. Mothers hold tight to little hands. Everyone chatters. And then they see the canyon painted by time.



a fly shop in Gardiner, Montana, back when fly shops were scarce in the greater Yellowstone ecosystem—not that we knew what an ecosystem was. We were among the few anglers who even knew of a place where the river could be crossed on foot.

The trout shared our idyll. One of us would put a dry fly—any pattern—in front of an innocent cutthroat and it would rise, slurp, slosh around till it could be released, and then take the fly again in a few minutes. We had to keep moving so that we would not wear out the same fish.

But there was a bigger trout just beyond reach, so I waded in deeper, heaved out a mighty cast, and took a torrent of water over the top of my waders. Mert grabbed me as I bobbed downstream. It would have been a bad

Chances are that you too have seen that sublime view and heard the roar of the Yellowstone River falling more than 300 feet. Or, if you grew up in the dark canyons of a city, you may have seen a painting of the scene—Thomas “Yellowstone” Moran was the artist, and his work went on display in the nation's capital. Today it hangs in the Smithsonian Institution.

Moran painted better than he knew. There were proposals to dam the Yellowstone River, in the century just past, but we—Americans east and west—knew what was at stake. *Dam* is a cussword now in the Yellowstone Valley, and the longest undammed river in the lower 48 states still runs free for 600 miles.

Always has. Always will.



**ALL I CAN
TELL YOU ABOUT
MY BAIT**

**IS THAT IT INVOLVES
HOG BRAINS
AND 30 POUNDS OF**

BUT BEFORE I CAN GET MY BOAT OVER THE DEEP PART OF THE
RIVER, I'VE GOTTA TOW IT THROUGH DEEPER MUD. HUB-SUCKING,
GRILLE-FILLING OOZE ABOUT AS FRAGRANT AS MY STINK BAIT.
GUESS YOU COULD SAY MY SPOT'S A SECRET THAT KEEPS ITSELF.

BAD

CHEESE.