JOHN RANDOLPH PHOTO

A swarm of mating Tricos hovers over the stream. After mating, the females descend to the water to drop their eggs, and after laying their eggs, the female Tricos fall spent on the water's surface. The males fall spent on the water shortly after mating.

My Barb-wing Dun pattern comes closer to being a secret weapon than any other Trico imitation in my fly box. Trout may like the design because it has a pheasant-tail body that makes it look like an emerging fly stuck in the surface film. I like it because it has a wing that I can easily see. The wing is made of barbs (fibers) from a white hackle wound and then pulled above the hook shank, fanning them out into a broad V shape. The Barb-wing Dun is close in structure to both the no-hackle duns and Compara-duns. The hackle is easy to tie in small sizes, more durable than quill wings, and softer in the trout's mouth than deer-hair wings. In Pennsylvania I have used a Barb-wing Dun to catch between three and six fish daily before the spinner fall begins. In Montana the dun is even more important, because the hatching lasts longer on cool Western mornings.

The design of the Barb-wing Dun makes an important point: The best small-fly designs are not just shrunken versions of big ones. This sounds obvious, but it's not. Most of us have a cultural block. We learned to fish with flies of ample size, but when we began fishing smaller flies, we carried along firm notions of what an artificial fly should look like. In the 1960s, for example, I knew that trout taking medium-size sulphur duns wanted size 18 imitations on 5X tippets. It seemed logical that fish rising for Tricos should want a size 24 fly of the same design on 7X monofilament. That is what I fished. Today I still see that same type of fly in shops. The folks fishing these flies must be having the same problems I did. No wonder the Tricos have a reputation for difficulty.

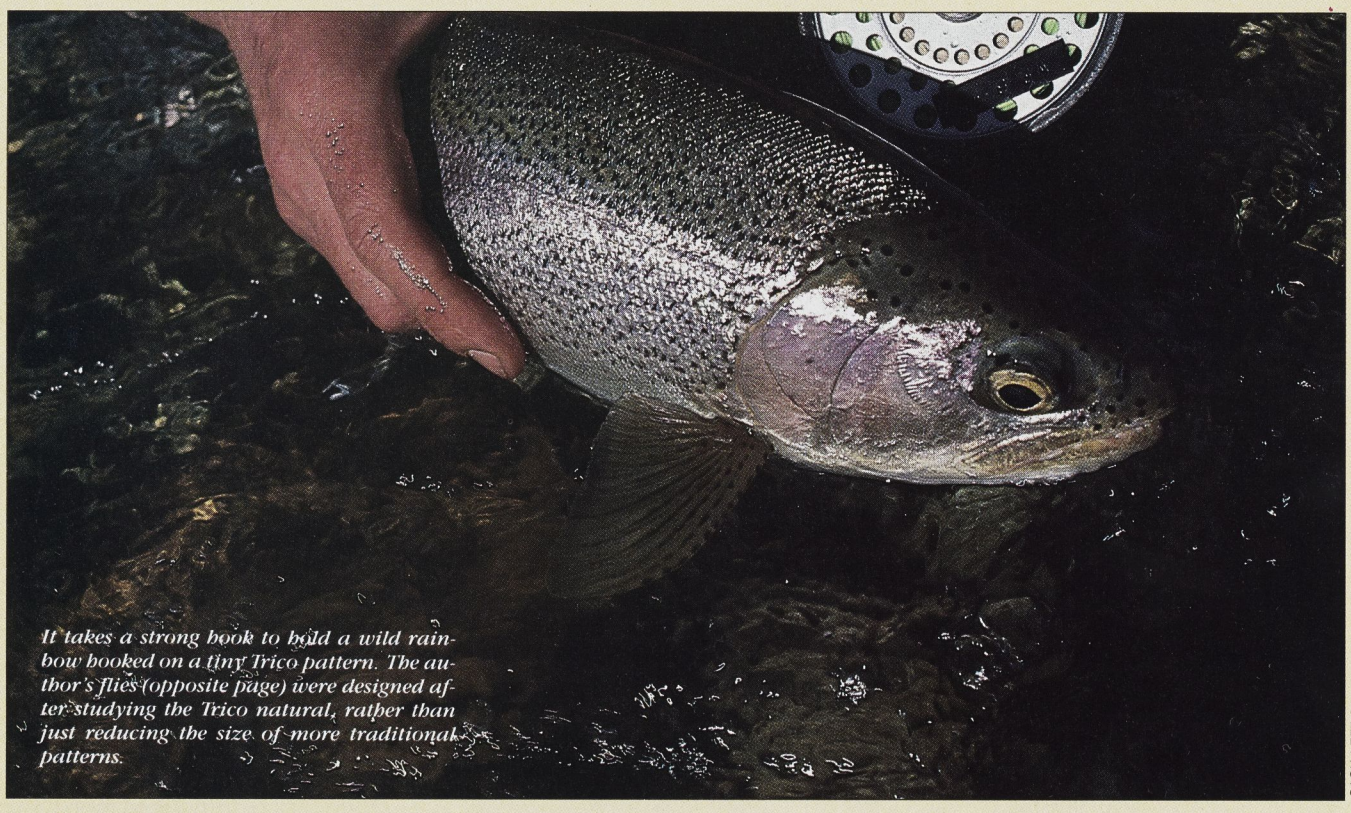
Good Trico imitations need not be difficult to tie or fish. There are, however, some design problems that I have not seen described elsewhere. Let's start from scratch rather than starting with big, familiar flies and reducing them in scale.

The Proportions

THE LARGEST TRICO nymphs I have found in both Pennsylvania and Montana measure 7 millimeters, not counting the tails; some duns are nearly as big. I tie all of my Trico imitations (nymphs, duns, and spinners) on hooks measuring 7mm to 8mm overall, including the hook eye. It's a compromise. The fish may refuse larger flies, and hooks smaller than 7mm hook poorly.

Choosing the proper hook model for Trico patterns is difficult: One hook company may use different sizing scales for different models of their trout hooks. A size 20 Mustad 94840 hook is about the same length as a size 16 Mustad 3906 (which is a better model for Trico patterns). The equivalent Partridge Code A hook is a size 17. Measure the hooks; the sizes on the boxes do not help much.

Whether we photograph mayflies or human models, we prefer subjects with perfect bodies. But when Trico female spinners have laid their eggs and fallen spent to the stream, they don't have much body left. I burned up a lot of film trying to photograph mayflies without makeup as they floated naturally down the stream, and I got nothing that would sell calendars. Trico spinner



It takes a strong hook to hold a wild rainbow hooked on a tiny Trico pattern. The author's flies (opposite page) were designed after studying the Trico natural, rather than just reducing the size of more traditional patterns.

KRIS LEE PHOTO

wings, on the other hand, hold their shape and become the most visible feature of the spent flies, especially when you look up through the water, like a trout. Try it with a glass pie dish. The spent wings get caught in the surface film and create a striking light pattern. Try thinking of Trico spinner imitations as wing flies with about a 10-millimeter wing span, not body flies. This is another one of those notions that are difficult to grasp.

The Right Hook

WITH TODAY'S STRONGER tippets, the hook can be the weakest link in a fly fisherman's terminal tackle. Through research for my book *What the Trout Said* (Nick Lyons Books, revised 1989) I found that Mustad 948-series hooks are springy and have poor hooking geometry in the small sizes. In size 20, the 94840 will open far enough to lose a trout with a pull of about 1½ pounds. This assumes that the hook is caught in the trout's mouth by the point only. A hook that has fully penetrated will take a stronger pull.

Japanese hooks (available in a confusing variety of brands) often have shapes that hook better in small Trico sizes. Those I have tested, however, are not significantly stronger than Mustad models. The strength problem is not critical in most of the Eastern waters I fish, but for heavy Montana trout in weedy streams, I recommend the Partridge Code A. This is an old design, apparently identical to the Hardy hook that Americans preferred in prewar days. (See Preston Jennings' *A Book of Trout Flies*, first published in 1935, revised in 1970 by Crown Books.) By comparison with the size 20 Mustad, the size 17 Partridge has the same length and is almost twice as strong, testing at 2¾ pounds. It also has 40 percent more gap, which helps to get the fly stuck in the trout in the first place. For the best hooking success, use the down-eye version.

The Partridge Code A hook seems heavy to many anglers. However, a hook's weight is less of a problem in small dry flies. The smaller the fly, the easier it is to get away with a relatively stout hook. The small, stout, wide-gap hooks have other advantages: They hook well, and they seem to "anchor" or hold the fly in the surface film, which helps the fly resist drag and allows you to use a heavier tippet.

The Spinner Glut

THE TROUT IN ONE PENNSYLVANIA spring creek, based on my observations, eat virtually nothing but Tricos from July 4 to late September. The stream has a reputation for difficulty—and no wonder. Most anglers arrive *after* the hatch and spinner fall has ended for the day. The feeding frenzy comes when the Tricos are in their spinner stage. The trout gobble spinners until their stomachs are stuffed like a black sausage. Then they eat until the flies they started with an hour earlier are forced out their vent. This translates into hundreds of rises, during any one of which the fish might take an artificial fly . . . but probably won't. The odds are against us fishermen. We get frantic, too, given so many missed opportunities.

Many anglers who fish that stream logically assume that the trout are selective, and then they try to make the flies they use more realistic. Furthermore, they define realism in terms of color.

Continued on page 64

Invisible-hackle Nymph

HOOK: Partridge Code A, 7mm to 8mm overall length (size 17 or 16), 2XF. Substitute Partridge Captain Hamilton or a light-wire Japanese hook.
THREAD: Pale green or yellow.
CEMENT: Penetrating rod varnish. Allow to dry overnight.
TAIL: Allow tips of body herls to protrude about 5mm.
BODY: Two pheasant-tail herls spun around waxed tying thread, then wound sparsely. Form a small thorax bulge behind the hackle.
HACKLE: Two wraps of watery-blue-dun cock's hackle about 4mm long.

DATUS C. PROPER PHOTOS

Barb-wing Dun

HOOK: Partridge Code A, 7mm to 8mm overall length (size 17 or 16), 2XF. Substitute Partridge Captain Hamilton or (if the fish are small) a light-wire Japanese hook.
THREAD: Pale green or yellow.
CEMENT: Penetrating rod varnish instead of regular cement. Allow to dry overnight.
TAIL: Pale hackle barbs (fibers) about 7mm long, in a broad V shape.
WING: White hackle with barbs 9mm long. Wind in normal fashion, then pull into an upright V-shaped wing fanning out over about 120 degrees. Secure with figure-eight wraps of tying silk under the hook shank. Tie the wing before the body.
BODY: Two pheasant-tail herls spun around waxed tying thread, then wound sparsely. Make a figure-eight wrap under the wings to form a broad thorax.

Wing-fly Spinner

HOOK: Partridge Code A, 7mm to 8mm overall length (size 17 or 16), 2XF. Substitute Partridge Captain Hamilton or a light-wire Japanese hook.
THREAD: Black.
CEMENT: Penetrating rod varnish. Allow to dry overnight.
TAILS: Dun hackle barbs about 10mm long, spread into a broad V shape.
WING: Shiny, stiff white hackle with barbs about 5mm long wound over the front two-thirds of the hook shank. Trim bottom of hackle after body is wound.
BODY: Black fur dubbing wound through the hackle to reinforce it. The body is on top of the hackle.

Wilderness Smallmouth

Trophy bass in a pristine setting along the Canadian border

GREG BREINING

The Boundary Waters Canoe Area's lakes and rivers are home to large wilderness smallmouth.

BRUCE INGRAM PHOTO

Although brown trout cannot reproduce naturally in Mossy Creek, stocked fish hold over well and become extremely wild and difficult to catch. They're worth the effort. The stream's banks have been stabilized and streamside vegetation has returned. A free permit is required for access to the stream.

and 8 Woolly Buggers, marabou muddlers, white streamers, and various sculpin patterns are some of his favorites. Productive nymph patterns include Whitlock's Red-fox Squirrel-hair Nymph (#12 and #14), various caddis pupae (#14 and #16), and scuds in sizes 16 and 18.

Don't overlook the dead of winter for a trip to Mossy. Cramer says that on one mid-January afternoon, he caught 12 nice browns on a size 18 Adams. Various midge and caddis hatches come off throughout the winter.

The spring period runs from April through June. The sulphur hatch, the stream's premier hatch, usually begins during the first week in May and continues through the middle of June. Size 18 Compara-duns work well during this period, especially before dark when the spinners return to the water. Elk-hair Caddis (#16 to #20) with olive or rust bodies also work well during spring. Streamer and nymph patterns continue to catch trout, but generally they are not as productive as the patterns just mentioned. Olive crayfish are a good back-up choice.

The summertime period, from July through October, is probably the best time to visit Mossy. As evidenced by my August outing, fishing pressure is light then. More fly rodders visit the creek during the spring, but rarely is the stream heavily fished—again because of its difficult nature. Cramer likes to use #16 through #22 ants and #12 through #18 beetles during July. Size 16 hoppers also take fish. From August through October, take a full assortment of grasshopper imitations in sizes 6 through 14, plus beetles in sizes 12 through 18 and #10 crickets. Mossy Creek is loaded with 10- to 13-inch browns, but the stream also has a considerable population of three- to five-pound bruisers, and drifting hoppers through a pool is a great way to go after those large fish.

Permits and More Info

MOSSY CREEK IS UNUSUAL because it is private water that is open to the public. *You need a free permit to gain access.* The permits are available at many fly-fishing shops in Virginia and are valid for one year after the issuing date. (A regular Virginia fishing license is also required.) Mossy Creek Outfitters, Cramer's shop, can supply permits as well as current fishing conditions, flies, and guided trips. For more information, contact Mossy Creek Outfitters, P.O. Box 135, 105 N. Main Street, Bridgewater, VA 22812, (703) 828-6424. [*Murray's Fly Shop, also in the Shenandoah Valley, offers fly-fishing schools on nearby waters, including Mossy Creek. For more information, contact Murray's Fly Shop, P.O. Box 156, Edinburg, VA 22824, (703) 984-4212.* THE EDITORS.] For more information on the stream, contact the Virginia Department of Game and Inland Fisheries, P.O. Box 11104, Richmond, VA 23230, (804) 367-1000.

For brown trout enthusiasts, Mossy Creek offers the Shenandoah Valley's main attraction. But the nearby Shenandoah River has excellent smallmouth bass fishing, and the Shenandoah National Park has some fine native brook trout streams. The Shenandoah Valley has many fine restaurants and bed-and-breakfast inns. For more information about the valley, contact the Shenandoah Valley Travel Association, P.O. Box 1040, New Market, VA 22844.

BRUCE INGRAM, a freelance writer, lives in Botetourt County, Virginia. This is his first article in FLY FISHERMAN.

Designing a

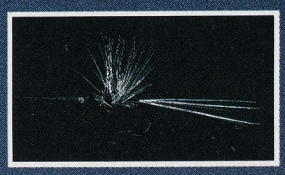
How to solve the summer's most difficult hatch

IN JULY, the mayflies called *Tricorythodes* begin to appear on trout waters across North America. Few fly fishermen knew about these tiny insects until 20 years ago, when Vince Marinaro described them in an *Outdoor Life* article entitled "The Hidden Hatch." The article showed Eastern fishermen that they could double their season by getting to the stream early enough in the morning to meet the Trico hatch. Marinaro was not the first to see Tricos or the first to fish imitations of them (as he made clear), but he put them on the map. Today fly fishermen enjoy Trico fishing from Pennsylvania to California, July to October.

This is the most abundant and dependable mayfly hatch in the United States. It is also unusually widespread. Morphologic differences between different Trico species are small. There is a wide range of sizes (described later), but all of them are equallly present in Pennsylvania and Montana. Colors vary—but they, too, vary equally in both states. Behavior of the

DATUS C. PROPER PHOTO

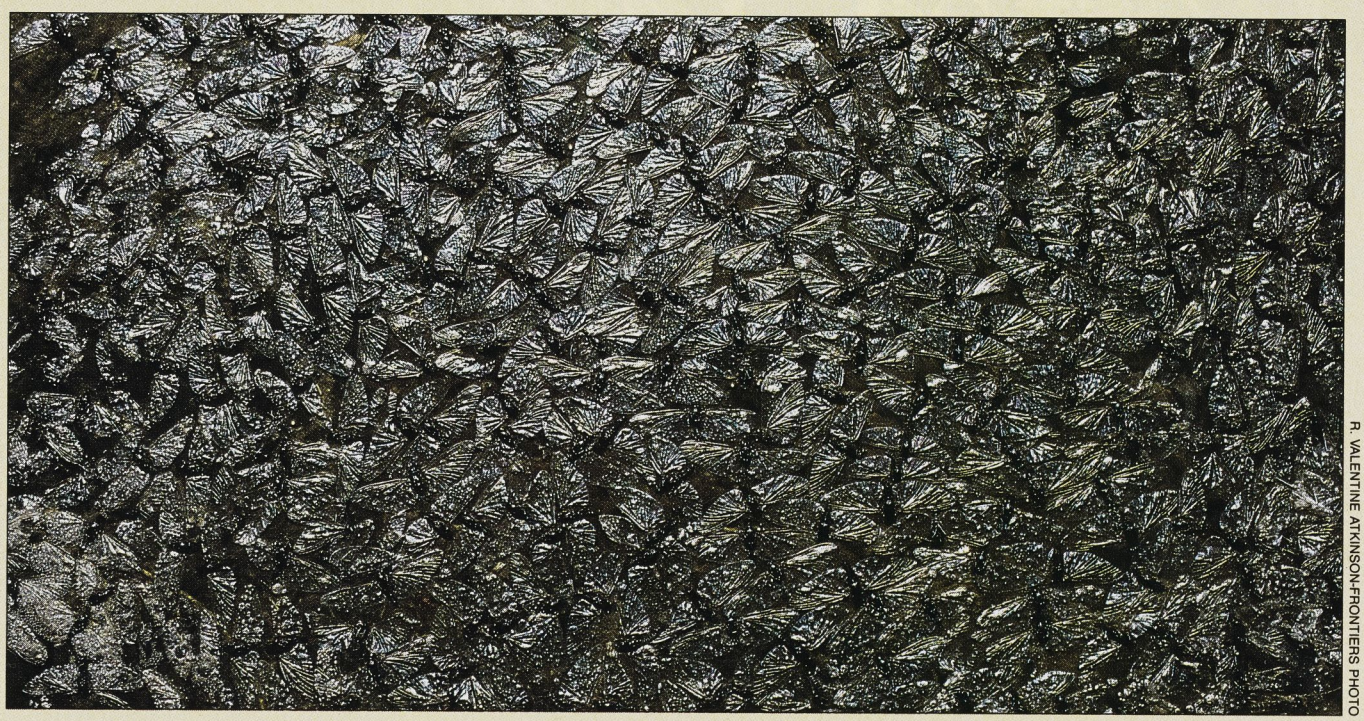
Better Trico



DATUS C. PROPER

Western spring creeks often have superb fishing for Trico spinners (inset, left), imitated by the author's Wing-fly Spinner pattern (inset above). Photograph of natural by E. Neale Streeks, fly pattern photo by Datus C. Proper.

July



R. VALENTINE ATKINSON-FRONTIERS PHOTO

Tricos seems the same wherever I have fished, allowing for differences in stream fertility and temperatures. Like the scientists, however, we anglers are still discovering the Trico, and modesty is in order. Good fishermen have described experiences different from mine. I will note some of the differences without pretending that I can explain them.

The three Trico designs I propose—the Barb-wing Dun, Wing-fly Spinner, and Invisible-hackle Nymph—work equally well wherever I have fished. They are desinged around the natural insects' behavior, size, and shape, with less attention to their color.

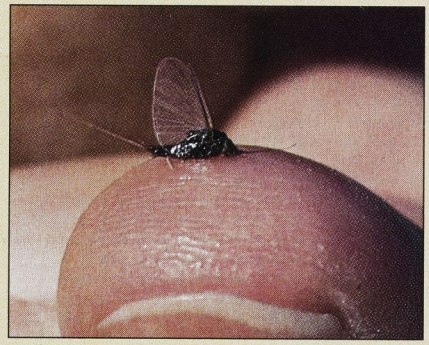
Trico Behavior

TRICOS TURN UP IN MANY STREAMS and some lakes, but I encounter them most often on fertile, weedy streams that get lots of sun. Even in these waters the flies are much more abundant in some reaches—often the lower ones—than in others. If a stream is known for heavy Trico hatches, it pays to roll out of bed in time for the emerging duns. Most anglers arrive too late for anything but the spinner fall.

It may seem strange, but the nymphs seem to *know* about air temperatures. They change into duns before dawn on extra-muggy Pennsylvania nights but not until the middle of the morning if the air is cool. How can information about air temperatures get to insects three feet down in a spring creek with slow-changing water temperatures?

The spinners are easier to understand. Leigh Perkins reports that Trico spinners start to fall at an air temperature of 68 degrees Fahrenheit. I have known Tricos to settle at lower temperatures, but they like heat when they can get it.

The mechanics of the hatch are puzzling, too. Some duns emerge while floating down the stream—you can watch them—but there are never enough duns on the water to account for the hordes of spinners in the air an hour or so later. Perhaps most nymphs change under water, sneaking out ready to fly. In any case, the scarcity of floating duns provides a way to beat the odds. Trout sipping a few emerging flies as hors d'oeuvres will often take an imitation on the first good cast. It helps to use the right fly, though, because at this stage trout still have time to feed selectively. You won't find extensive information in print about the hatching stage.



A mass of Trico spinners (above) on the water's surface. Male Trico spinners (right) from Pennsylvania's Spruce Creek have black bodies.

Female Trico spinners from Spruce Creek have greenish bodies. The author says that, based on his fishing experience, body color is not an important factor in fly design for the streams he fishes.

JOHN RANDOLPH PHOTOS

2/12/90

About 7025 words

JULY

[Picture: Mountains, clouds, & shafts of sun]

SOUND & LIGHT

ALL THE WORLD'S A STAGE

CHIPPER

NATURE AS FOOD-FACTORY

PREDATOR AND PREY

DECISIONS

THE GRAND PLAN

SHERLOCK ON THE STREAM

BLOOD SPORT

CODES IN CONFLICT

Flight of the Pintail (all trapping)

SOUND & LIGHT

The sky was not cloudy all day, damn it, till along toward evening, when moist air climbed Granite Peak and got something started. We knew it was happening when the sun cooked up popcorn puffs, mounds upon mounds upon mountains. Anna made us an Irish tea instead of dinner, tea being full of flavonoids and motivation, and as we ate, the bottoms of the clouds darkened, and when the sandwiches and cookies were gone I walked out the glass door into a sound-and-light show more powerful by megawatts than the Glorious Fourth at the fairground.

You become a collector of clouds, when you can see them coming. You want them to give you moisture every few days to grow nesting cover, then sunshine to grow insects for the ducklings and pheasant chicks. You want rain to revive the barley but no hail to knock it flat. What you don't want is more bright, boring, movie-cowboy sky.

> The foregoing generations beheld God and nature face to face; we, through their eyes. Why should not we also enjoy an original relation to the universe?
>
> Emerson, Nature

Weather comes from the west, broadly speaking, but the angel

Needs an egregious segue to shift to weather topic

is in the details. In winter, we will welcome a flow from the Gulf of California, even if the jet stream drags our air over Disneyland first. In July, however, we want a cold front from the clean empty north Pacific, and that's what arrived yesterday late.

There was not much moisture in the clouds, as it happened, but they gave me an early dusk pierced by light. The sunshafts would have been just scenery for someone looking through a window. Out there in the meadow one caught me and I stood, wind flustering the grass all around. Sound of wings, smell of earth. Warm and bright, there in the beam.

The forerunner passed, headed east, leaving storm principal between me and the Tobacco Root mountains, where it would stay or move on and I would have nothing to say. Lightning tore the clouds to my west. Nearer to me, the friendly part of the storm stood on its sunbeam legs. Such rays of light are not elusive -- not like the ends of rainbows -- but they are sparse by nature, exceptions to clouds. And in this century it's not easy to catch silence.

I kept on moving west toward the weather, as Americans have done from the beginning. At the first bend in the creek I remembered that my fly rod was a shiny black electrode, suitable for catching either fish or lightning, and reminded myself to drop it if it began to tingle.

At the cattail marsh I walked wide, hoping that a certain duck would stay on her nest. But cinnamon teal are prone to

panic. This one ran toward me through tall grass, then flushed and labored away, trying to get me to chase her. During her pitiful flight she voided copiously, meaning that she had been brooding for some time. Perhaps her eggs were cracking and peeping, bringing out the mother in her. She may have been making a second attempt to start a family, because other ducks had young nearly fledged in July.

Down near the line fence, a couple of hundred yards farther along my walk, a small animal in the grass moved toward me. Somebody's cat, I supposed, out for duckling on the half-shell. Then a tail snapped up, fluffy black with white stripes, and I yielded right of way. The skunk moved along upstream.

ALL THE WORLD'S A STAGE

A rosebush overhanging the Elbow Pool radiated half-rings, so discrete that I spotted them only because they were highlighted in pink from the sky. Looked like the rise of a good brown trout -- one that I had not met yet. It would be no pushover; mustn't even think so. But a spinster brown might fall for a line that the usual showgirl rainbow would spurn.

The Elbow Pool had a good casting position, too. I sneaked upstream in the quiet flow, careful not to make waves, and stopped in water high on my waders, where I could fish standing up, for a change. I stripped line from the reel, greased my fly with flotant, and began casting -- which was the cue for a duck of a different species.

The word "teal" lumps together ducks that have in common small size, but not much else. Cinnamon and blue-winged teals look identical, except for their colors, and bear a resemblance to the larger duck called a shoveler. Another teal, however -- the green-wing -- is a kind of hyper-mallard: half the weight and twice the fuss.

This particular green-wing tried to decoy me away from her brood, hidden in cress across the creek. I ignored her. Mistake.

I know the broken wing flop well and so do you but would detail it for most readers?

She flew back, splashed down in front of me, and resumed her performance for a full flopping five minutes. Trout grow accustomed to ducky histrionics and will put up with them, to a point. But not to this point.

I gave up on the brown trout, climbed the bank, and hiked across a neck of land that put me a quarter-mile above Ms. Green-wing's brood, as the stream flows. She flew along behind me. Her career was what mattered now. Never mind the babies at home alone. Forget their feckless father (or fathers, as the case might be). Here, at last, was an audience. She crash-landed in my new pool, quacked, flopped, expired, and revived for several encores, all the while flailing her wings till any trout would have left the theater. And so did I.

My above comment premature obviously

The evening rise is short, in this valley, because cool air flowing downslope from the mountains makes insects, and therefore trout, retire soon after sunset. You get one, maybe two chances at trout taking spent mayflies. But that brief half-light is the best time to be out in the meadows. Big fish emerge from their shadows; little fish hide; and you walk softly, afraid of your darkness.

GUY de la VALDENE calls her a "drag queen"

CHIPPER

> I love to see that Nature is so rife with life that myriads can be afforded to be sacrificed and suffered to prey on one another....
>
> Thoreau

The skunk is a logical suspect for what happened last night. It would have back-tracked the cinnamon teal's scent-trail to her nest, just as Huckleberry does it, but would not have stopped on point. That's amateur sleuthing. What I know is that something ate the cinnamon hatchlings, and then this morning the bereft mother was on our lawn, trying to adopt a baby rabbit. I watched them for a few minutes, she waddling close, bunny preferring clover, she too broody to back off. She had lost her family with maternal instinct at its peak.

Anna and I have a history in this matter. It started when I brought home a baby duck once, knowing that I shouldn't. Our adoptee came from a different spring creek -- one in snapping-turtle country.

I had been sauntering upstream, watching for rising trout, when two ducklings caught my attention because no mother was in sight, and I thought: Youngsters like you should not be out alone. They were too hungry to worry, skimming and twirling and pouncing, letting no midge pass.

I moved on downstream, found a trout rising to sulphur duns, and almost caught it. On my way back up, I checked on the ducklings and found only one left. Not far away, underwater, was a thing dark and still, waiting its chance.

The snapping turtle is a creature of small brain which has, nevertheless, survived in recognizable form while dinosaurs passed through and humans fouled the water. The creature is so dim that you prepare it for the table by letting it bite a strong stick which you then suspend by the ends from forks in two trees, thereby stretching the turtle's neck, which you sever, and the head still bites its stick, eyes glaring at you. This is hearsay, understand. I got it from a fellow who was fond of turtle soup.

> The law of tooth and nail is all right with me when it involves hawks and mice, or foxes and geese, or even sharks and swimmers -- there is a redeeming elegance in most predators, a breath-taking speed and agility.... But a snapper is an ugly proposition.
>
> Franklin Burroughs[1]

It would seem difficult for a creature so dim to pull down a quick, bright mother duck and her whole brood, one by one. But it happens. Ducks (and humans, for that matter) seem to have evolved to cope with predators everywhere except beneath them.

The right thing for me would have been to walk away from the baby duck. The write thing would have been to take notes and chronicle the death in gory detail. They need scripts like that

for television.

This innocent did not want to be saved, and by the time I had it in my landing net, the chase had frightened every trout in the stream. Duckling, however, settled down in the foam box ~~from a hamburger~~ -- translucent as an eggshell -- and accepted Anna as soon at it made her acquaintance. Mothers are mothers, I guess, across wide biological gaps.

It turns out, moreover, that charm is charm along the same spectrum. Our new member of the family was vivacious by human standards, let alone turtle standards (and we've had baby turtles too). We did not want our wild adoptee to lose its edge, so Anna held it up to a cluster fly crawling on a window. Target acquired. Neck cocked. Gotcha. Duckling had the bright eye -- a predatory intensity that made us laugh in recognition. That was no bit of fluff. That was me, casting at trout.

Anna proposed names but backed off when I explained. I had learned about ducks by hunting them. Still see them with a bright eye, knowing the curve of their wings spilling air, dropping into decoys. Ducks gave me the marshes and the mornings with red sun and a skim of ice. They started with lust and turned into commitment, and now I'd rather watch them than hunt them. But when I watch I <u>am</u> hunting, desiring their wildness.

So we just kept on calling him -- or her -- the duckling. Never even learned the species. I did not want to know.

Our mistake came in letting the duckling swim in a basin while we swatted flies and dropped them into the water. Our

bright-eyed baby would get them as soon as they hit water, if not in the air, and skitter the circumference looking for more. The house had never been so bug-free.

We did not guess that wet ducklings needed mothers to brood them dry. We could have rigged a heat lamp. As it was, duckling caught a cold and we did the warming inside our shirts, bill sticking out between buttons. Our two-ounce pet came to bed with us, but it had pneumonia and could not last the night.

I never did tell Anna its name.

I think the mother
dries the ~~bab~~ ducklings

NATURE AS FOOD-FACTORY

You already know that wild foundlings should not be adopted. Among other hazards, a baby duck will split your personality.

- On the one hand, it is cute. It is quick and beautiful too, but the cuteness is what gets to you. There is that bill with its daffy infant smile, and you think of the soft body in a snapper's beak.
- On the other hand, you have saved your duckling from what made it beautiful. Nature is not a baby duck. It is all ducks great and small, and all they eat, and all that eats them.

If you are nodding your head and thinking yes yes, the consequences may not have sunk in. Wildlife needs tough love -- the kind that does right by populations, not individuals. When you focus on a single duck, you are making yourself useless to nature, or worse.

Nature is a factory, not a retail outlet. It turns out billions of perishables a day, from diatom to elephant, all of which will return to the earth. That includes you, unless you choose to have your bones launched into outer space.

But such thinking about nature does not come naturally. You are stuck with a mind that evolved when your ancestors lived like

Bushmen, in close-knit bands of individuals. You are programmed to defend living beings with names. One baby duck called Chipper means more than a distant flock. Maybe it means more to you than the whole anonymous population of Bangladesh.

And what's a population anyhow? The very word is an awkward modernism, as applied to wildlife. "Population" comes from the Latin populus, which means "the people," not the ducks. Our ancestors did not hunt populations of animals. They hunted individuals, and asked their pardon, and passed the feeling down through millennia. You've still got it. Your knowledge has changed, but your emotions have scant room for populations of anything -- ducks, deer, or people. You suspect that half the population of Bangladesh would be better off if the other half had not been born, but you don't dwell on the thought because people have rights. Individual rights. We wrote them down as the first ten amendments to our Constitution, back in 1791.

In nature, there are no rights. A wild duck has no name, either, and slim prospects. It cannot even breed, unless it finds another of the same species and opposite sex, which ought to come from a different gene pool, which requires a diverse population, which requires great areas of marsh. It's that habitat you need to watch, and the mix of species in it, and their success in reproducing year after year. If they fail, you try to fix their problem. And if they get so abundant that they damage their nesting habitat -- like snow geese -- you remove bag limits, keep the season open longer, and try to recruit hunters to reduce the

population.

In the days before wildlife management, we had not populations but collective names for each kind of animal -- flock, flight, wisp, herd, drove, pack, gang, gaggle, bevy, brood. But if the terms of venery were more sophisticated then, the science of biology had not gone far.

The old ways were natural for humans and hard on our prey. The hunter-gatherers who came across the land-bridge from Asia would have hunted each New-World mastodon with respect, no doubt, and eaten it gratefully, and propitiated it in death. But the species went extinct. If the old people had looked to the ecology of mastodons instead of their spirits, we might still have a breeding population instead of a few revered bones.

too blunt for style?

Flight of the Hunter

PREDATOR AND PREY

This valley is west of the snapping turtle's range, and so far no bears or gray wolves have come down to us from the mountains. But of other predators there are plenty, and July is when they fatten on young things from ducklings to fawns. Mountain lions could hide in the greenery and one is in fact doing so; a neighbor caught a glimpse of it last week. Of the wildlife on this place, only humans, and eagles are casual about concealment all year long.

And only our mother ducks go out of their way to attract predators. The trait is as clearly sex-linked as the mating displays in spring, but the linkage is reversed in summer. Drakes that were flamboyant in May are in eclipse plumage now, and hiding in the spring feeders beneath overhanging grass. Hens own the stage. Their distraction-displays are the most vigorous I recall during the years on trout streams, perhaps reflecting the intensity of predation.

It may not be a coincidence that green-winged teal -- the most active demonstrators -- raise the biggest families. Or perhaps the mallards' larger size makes it harder for them to hide from the fox kits yapping out there at night. You see a mother mallard with eleven fuzzy ducklings, then nine slightly

FOWL FACTS

©SCOTT NIELSEN

Early Birds Are More Productive

Ducklings that hatch first account for a large percentage of the breeding population

Recent evidence is mounting from scientific studies that there are distinct advantages for waterfowl that nest early in the season. For some time, waterfowl biologists have found that ducklings hatched early in the year have higher survival rates than birds hatched later. This has been attributed to the decline of wetland conditions as spring turns to summer in prairie and parkland breeding locales. However, researchers have recently found that early-hatched ducklings not only survive to fledge at higher rates, but also that the proportion of young surviving the fall and winter and returning to breed is dramatically higher.

A recent study of canvasbacks by Ducks Unlimited's Institute for Wetland and Waterfowl Research found that a small percentage of early-nesting females produce a substantially higher proportion of the young recruited to the breeding population during subsequent years. Another study of breeding mallards by Canadian Wildlife Service researchers found that ducklings produced during the first five days of the hatching period composed 40 percent of the breeding recruits the following spring.

The advantage enjoyed by these birds is that early-hatched ducklings have a longer time period to mature, build important nutrient reserves, and gain experience before meeting the rigors of fall migration and the wintering period. This evidence further illustrates the importance of DU's programs to provide undisturbed grassland cover on the prairies and parklands for upland nesting dabbling ducks. Early in the breeding season, when the most productive hens are initiating nests, the only upland cover available for the birds is residual vegetation left from the previous summer, as new growth doesn't begin until weeks later.

—Scott Stephens

Going Hunting in Canada?

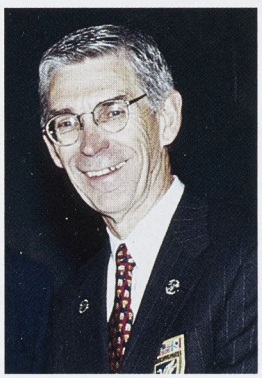
No new regulations for American hunters taking shotguns north of the border

©TOM FULGHAM

While Canadian citizens have been saddled with a host of new gun regulations under the nation's new federal Firearms Act, nothing has changed for American hunters who plan to bring shotguns with them into Canada this fall. Visiting waterfowlers, however, should be prepared to have their shotguns checked by Canadian customs officials upon entering the country. Also, be sure to carefully read federal and provincial hunting regulations that apply to the area you intend to hunt in Canada, and check with the U.S. Fish and Wildlife Service Division of Law Enforcement (703-358-1949) about the latest regulations pertaining to the importation of wild game for human consumption and taxidermy purposes back into the U.S.

Julius Wall Named DU President

Julius F. Wall, a longtime DU volunteer and board member, was elected president of the organization at DU's 61st annual convention in Quebec City, Canada. Wall, an attorney from Clinton, Missouri, most recently served as DU Treasurer and First Vice President. He has also held positions as Chairman of the Finance Committee, Senior Vice President, Regional Vice President, and State Chairman.



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"It's an honor to serve as president of this great organization," Wall says. "DU has accomplished some tremendous things over the past six decades, but there is still a lot of work to be done. As we prepare to face the unique conservation challenges of the 21st century, we must follow through on the careful planning and hard work that have brought us to this point. And we must continue to adhere to DU's original mission of habitat conservation for the benefit of waterfowl."

Outgoing President Gene Henry, who served in DU's top post for the past three years, was elected Chairman of the Board. Henry, from McFarland, Wisconsin, has been an active DU volunteer for more than 30 years.

DID YOU KNOW ?

According to a report compiled by the National Shooting Sports Foundation, hunting and shooting sports support more than 986,000 jobs.

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bigger, then seven, six, four. And still, despite the predation, life goes on. When you create a flap every time you go fishing, you have all the ducks you need -- for yourself.

In the larger world, however, waterfowl need help. Ducks have lost nesting habitat in the prairies -- North America's best breeding area -- and they must have places like this farm, with dependable water. The drought cycle will return, as it always has, and some ponds will dry up.

The manager of a nesting area must look to biodiversity: the health of species, not individuals. The teals are doing well here and mallards are more than holding their own, but I have yet to confirm a successful brood of pintails. It may be that our good-looking cover short-stops their migration and sets them up for predation.

I would not like to think of this farm as a death trap. Of all ducks, pintails are the most elegant in flight, and the sky would miss them.

I was trying, there, to echo Aldo Leopold's similes.

> The government trapper who took the grizzly knew he had made Escudilla safe for cows. He did not know that he had toppled the spire of an edifice a-building since the morning stars sang together.
>
> Aldo Leopold, 1949[2]

Leopold's generation grew up when wild carnivores were competitors for scarce resources. No: for food. Resources have a

dispassionate sound, but a boy who lost his Sunday dinner during the Great Depression was going to look for the culprit. Red-tails were called "chicken hawks," in the days of free-ranging hens.

Country boys had an incentive to trap fur-bearers, too. The market for their pelts went up and down with hemlines, but foxes, raccoons, and skunks were always worth catching.

The campaign against raptors, however, went beyond economics and below reason. Peregrine falcons were killed because they were killer-birds themselves -- as if humans were not predators too. And bald eagles were hung out to dry on barbed-wire fences. Red-tailed hawk populations, on the other hand, were not much affected.

Aldo Leopold led the conversion with arguments of church and state. The grizzly as spire, the dying green fire in the eyes of a wolf -- those were images that a growing urban majority could understand. But Leopold's ecological reasons were powerful too. "I now suspect," he wrote, "that just as a deer herd lives in mortal fear of its wolves, so does a mountain live in mortal fear of its deer. And perhaps with better cause, for while a buck pulled down by the wolves can be replaced in two or three years, a range pulled down by too many deer may fail of replacement in as many decades."[3]

Leopold could not have imagined how successful his appeal would be. The predator/prey relation has reversed since he died in 1948: partly because his research was sound, but mainly because of the new-time religion. Predators have more charisma

than prey on average, snapping turtles notwithstanding. You can admire mountain lions, if they are careful about which people they eat, and grizzly tracks will concentrate your mind every time. Small predators are good to see too -- in natural numbers.

> The typical suburban backyard is the scene of continuous slaughter at the hands of both wild predators and domestic ones, especially the cats.
>
> William K. Stevens, New York Times[4]

I would like to wish away the boom in real estate, which is changing not only the human ecology but that of wildlife. The new houses produce more roving cats, more fragmented cover for magpies, more tall trees for great horned owls, and more fence-to-fence lawns where a duck can't nest. The pintails are having trouble keeping up with the Joneses.

In my opinion nothing compares to the feral cat as killer. I would weigh in heavy here

agree →

for letter to Jack →

Non-feral cats are good at it too.

(use the para. on trapping)

DECISIONS

> It was not my choice. But I accept it, and I try to do something for my country because I live here.
>
> Václav Havel

As between pintails and things that eat pintails, there are three choices.

(1) Many small predators and scarce (perhaps threatened) pintails. This option prevails, in most places, because we have chosen not to choose.

(2) Many ducks and few small predators. One Montana wildlife refuge increased the nesting success of ducks from 18% to 72% by trapping skunks and raccoons. Pintails are now breeding successfully, along with mallards, coots, shovelers, and all the teals.

(3) Some reasonable balance. Call this the biodiversity option.

Maybe regional style here but we shoot teal. Down people shoot teals

Option (3) starts with an a realization that human and wildlife populations have changed, and will always change. Ducks are old residents. Raccoons moved in with the urban diaspora and are awfully good at finding nests of pintails.

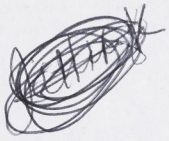
So are turkeys they love eggs of all ground nesters here

Of remedies, improvement in nesting cover is the most obvious. We've done it and it works -- to a point. But in order to keep the predator/prey relation in reasonable balance during the age of subdivision, I would have to get out there and trap some skunks, raccoons, and foxes. Right on. Do they like sidewalks?

I'm not doing it. Humane, quick-killing traps are available, but the work is cold and hard. No one, on the other hand, learns more about nature than a trapper puzzling out sign. One or two young men have been willing to catch muskrats, some years, but no one has even tried for the nest-predators. Carnivores are more clever than muskrats, and spread less thickly, and the financial incentive is small. The best thing for baby ducks in Montana would be higher fur prices in New York.

You have not read much on this topic. Predator-control is so sensitive that writers and editors stay away from it. Fur-bearers were unnaturally scarce, a few years ago, and a few high-profile predators are still in trouble. You have to figure that the public will fall behind the curve in such matters, anyhow. Maybe a couple of centuries behind.

THE GRAND PLAN



> Vast chain of being! which from God began,
> Natures aethereal, human, angel, man,
> Beast, bird, fish, insect, what no eye can see ...
> Where, one step broken, the great scale destroyed
> From Nature's chain whatever link you strike,
> Tenth, or ten thousandth, breaks the chain alike.
>
> Alexander Pope, 1733-34[5]

FIRE?

I think this should include burned

The poet's island had been logged, farmed, grazed, overgrown, built up, torn down, and built over in layer after layer. And yet he saw nature as fragile. He lived where land and water had been managed for better or worse, but certainly for centuries -- and warned against upsetting God's precarious arrangements.

Compare the poem to the prose:

- The poet's aethereal Nature works perfectly, with this proviso: We humans must not break one step or strike one link lest we destroy the great scale.
- In the alternative nature, we humans are in charge. And there is no denying that we have often made a mess of it.

The two models are incompatible. You choose one or the other -- and why would you settle for imperfection when you can have

order in the universe? Why not accept the vast chain of being, like Alexander Pope, or see living creatures as "conductors of divinity," like John Muir?

Because life does not work like that. If nature were a great chain, we would have severed it when we struck out the mastodon, passenger pigeon, and heath hen. Make no excuses for us. We have broken the great auks and the Great Plains as they used to be. And if we had spotted Nature at her balancing act, we would have cut her tightrope.

So what in hell comes next? Do we drop a tear for paradise lost and visit the perfect realities of a satellite dish?

Nature is still there -- not as it was, but not bad. It is with us in myriads and it's the only nature we've got. It is beautiful but not a tightrope act -- not in microcosm here on the home place; not during the evolution of life, which has been untidy; and certainly not in the macrocosm of the universe, which is terrifying.

Of course there are connections in nature. There is, ~~for example~~, a food chain with mayfly near the bottom, me (I hope) at the top, and trout bringing us together. There are balances, too -- mountain lions keeping mule deer from eating up their mountain (though it seems to be a boom-and-bust cycle). And there are endless processes, whatever ~~you call them~~ and wherever you start ~~them~~: energy streaming from the sun, moving through diatoms and midges, reappearing in the trouts' flashing scales, being swallowed by a heron, and returning to fertilize the stream. Life

is a compilation of competitions. If Mother Nature is planning all this, then she has a sense of humor like Rube Goldberg's.

Thank goodness. I'd as soon spray noxious weeds as dangle from the great chain of being. Imagine waking to perfection every morning, each link eternally changeless, each animal in place evermore if you just keep your distance. Does Nature with a "Hands Off" sign sound like Heaven? Or Hell?

Inconstancy makes life worth getting up for. Nature's endless cantankerous variations provide relief from human machines with their billions of hexagonal heads. The skunk's sharp teeth make ducklings beautiful. I don't know how Nature and Heaven fit together, but if God is at the top of the food chain, then She must be a predator.

SHERLOCK ON THE STREAM

Before the sun came back I was up and working, with one eye on the big round dial of the outdoor thermometer. No point fishing till the air got warm as the water. Nymphs on the bottom would know, in some way below knowledge, that the night had been clear and cool, and they would not hatch till all was right in that changeable world above the flow of their lives.

We humans can pick our season. We could be skiing in high white patches on the side of skillet, if wanted winter, or walking among spring columbines by a snow-fed stream half-way up the mountains. But summer is down here by the spring creek. Time does not matter, only the teeter-totter of water, falling in the high country and rising here, brushing the snowberries, pushing mounds of watercress into the willows.

I with the morning's love have oft made sport.

Shakespeare, Midsummer Night's Dream

By eleven the thermometer hit sixty degrees (~~16° Celsius~~) and I set off upstream, slow and focused, more energy in eyes

than legs. Mine was double predation, human hunting trout hunting insects. Make it a triple, if you would like to think of the mountain lion as hunting me. This place is paradise in July -- assuming we have got past the idea that paradise is peaceful. Otherwise, just take it that everything is eating something else in ample circumstances.

The first trout to move were in the duck-blind pool, where I refrain from shooting Ms. Green-wing every October. These had to be rainbows, most American of trouts, and even for Yanks they were brash, streaking around just beneath the surface, displacing water like a mother teal at her most melodramatic. Baffling behavior. There are few minnows in the spring creek and the usual mayflies and midges do not require an active chase.

Idea: parachute beetle. It certainly did not represent what the fish were feeding on, but a fat beetle can sometimes tempt a trout away from its regular food. After several long casts, the fly lit in front of the closest of the streaking fish. The rise was violent and so was the fight that followed -- a series of leaps. The trout was doing me a favor by fighting in my element rather than diving under long ropes of pondweed. The trick was to slacken the line with every jump so that the rainbow's weight would not fall on a taut leader.

The fish was fat, shiny, and eighteen inches long -- enough to make any angler's day. Furthermore, forensic medicine was going to provide a clue that might help me to catch something else.

The obvious way to take a stomach sample is to kill the fish, but then I would have been obliged to eat it. Alternatively, a stomach pump could have been used, but that process makes me feel as guilty as if I had terminated Ms. Green-wing. So I pulled from my detective kit an instrument of sentimental value. A friend had made it from an old tablespoon, narrowing, hammering and filing till it would slide into a trout's gorge gently. The craftsman was a writer named Vincent Marinaro, on whom more later.

Another gadget from the detective kit came in handy next -- a shallow, transparent plastic box. The trick was to put the top part of the stomach contents in the box, add water, and stir till the trout's prey were separated. The mystery insects turned out to be cranefly larvae.

> Like a long-legged fly upon the stream
> His mind moves upon silence.
>
> William Butler Yeats

Craneflies make no sense. As winged adults they are so clumsy that puppy Tess can catch them with a snap (and on her testimony, their flavor is not bad, not bad at all). As larvae, on the other hand, they look like great gorged maggots, yet they race through the water like killer submarines. But in rainbow trout, the larvae meet their match.

An unweighted hare's-nymph in my fly-box looked like a

cranefly larva and was big enough to work on a stout tippet. When the geometry looked right, I raised my rod tip, pulled the imitation larva past the fish, and watched it take like a tarpon. This rainbow was an inch longer than the last but a strong leader allowed me to release the fish while it had some fight left.

It would have been time to quit then, except for a gauze of insects dancing over the pool upstream, visible only when sun caught their hyaline wings. The air was empty, one second, and shimmering the next in tapestry fine as a spider's.

I hiked up and saw trout making quick little pips in the tail of the next pool. Down the current came a tiny fly -- wings above the water, body emerging from its nymphal shuck. It drifted into the insect net at the throat of my landing net, then posed under a magnifying lens. (Don't laugh at my equipment. This is a tale in the style of Sherlock Holmes, not Mike Hammer.)

The insect was a trico, appearing earlier in the year than usual. Trico is short for Tricorythodes, a genus of mayflies that hatch from New Jersey to California but were absent from angling literature till 1969, when Vince Marinaro wrote about them. They reach a maximum length of about one-fourth inch, and few American anglers tied artificial flies so small.

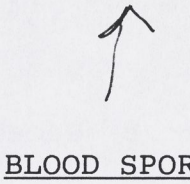
It would be wrong to deduce, here, that my rising trout were feeding selectively on tricos. To be sure that the evidence would stand up, a rigorous detective would have had to check stomach contents. The fish could have been eating not only mayflies but ants, beetles, and anything else that floated by. Trout and

anglers often tell different stories about the same event.

What happened next did not solve the epistemological question, but made clear what I should do. The trico duns molted in midair, turning into the adults called spinners, then mated while flying. Finally, the females lit on the water and disappeared into excited little rises. (This means that the angler was excited and the trout seemed to get carried away too.)

I landed a small rainbow and cast to another tiny bubble. The trout beneath turned out not to be tiny. It tangled the line in weeds, jumped, and broke off the fly and tippet. I measured a fathom of new tippet in the old way and tied on a spinner and cast, sunbeam trace between trout and human.

The dry fly is a child of our language. English is as obvious as a floating fly: you don't have to worry about cases and genders or strike-indicators. There is a straightforward logic and a grammar that beginners grasp quickly. But then there are irregularities, subtleties, pitfalls, the weight of history, the optics of the surface, the problem of drag, and more words than any other language. Our vocabulary is still growing, in this inelegant century, because we like to write on blue sky in old cursive script. We like to catch trout, too, and dry flies play to their weakness. We hunt elusive prey in a way that is handsome by coincidence and lethal by design.



BLOOD SPORT

> A game fish is too valuable to be caught only once.
>
> Lee Wulff, 1939

Trout streams near cities were in trouble, when Wulff wrote that. The custom was to catch all you could, kill all you caught, and call on the government to stock more. Hatcheries obliged by producing trout in vast numbers, but the quality of fisheries did not recover. from what?

Research in Montana's Madison River eventually showed what was going on. Biologist Dick Vincent found that stocked trout seldom survived long enough to reproduce -- but while they lasted, they stressed their stream-bred relatives. The effect was to damage the population rather than restoring it.

Anglers today release much of their catch, and wild populations are thriving. What's more, high-quality fishing in my part of the trout belt has made the new economy more prosperous

than the old, with guides, shops, realtors, and builders working overtime. Elsewhere in the nation, meanwhile, inner cities are in trouble and even the malls are losing customers. The shop-till-you-drop crowd has discovered fly-fishing.

You will have noticed that Lee Wulff sold catch-&-release angling with the word "valuable," and my language has also come from the marketplace, to this point. No apology. The market can be -- must be -- an ally of nature. If each trout and each human is part of an economic resource, however, each is also an individual, and the individuals have gone through something that I did not foresee. Two events on the same day opened my eyes.

The first jolt came when I landed a feeble trout with fungus on its sides and fresh scars on its mouth. Later on, I saw another fish that had been caught too often, and then one with a blind eye. My last trout of the day had a section of loose gill. Those fish were, to be sure, a minority in a thriving population.

> To hook trout and put them back into the water, unless they are too small to keep and quite uninjured.... is a mild form of cruelty; but it is cruelty; it involves the infliction of pain without the hunter's justification for doing so.
>
> A. A. Luce, Fishing and Thinking[6]

The second eye-opener came that evening, as we fisherfolk pulled off our waders. One young man reported that he had averaged four fish per hour -- a decent score, but nothing

special. He would have to land eight per hour for twelve and one-half hours in order to achieve a "hundred-trout day." He would release all his fish, of course. He had already released himself. His sport was immaculately conceived, free from guilt.

Mine was not. Vince Marinaro had put the remorse back in fishing a decade earlier, when I was returning a trout to the Letort River despite a red tinge in the water. Vince was blunt: "Fishing is a blood sport."

It has been a blood sport forever. We have always lived by eating other forms of life, and always will. But the economics have flip-flopped. This is the first century in which many of us (in the supermarket nations, at least) can afford to wash our hands of bloody old nature. Our behavior changed first, when our physicians told us to stop porking out, and our attitudes came along, as attitudes always do. We have a low-calorie prayer now -- not Bless-this-food but Don't-let-it-kill-us.

Wild food is the natural diet: low in fat, high in exercise, and (if pursued by the right rules) good for the land. ~~More on this in November~~. But wild game and fish require wild habitat, which for most people is hard to reach, in today's upside-down economy. We therefore exercise restraint. (If you have hunted deer for long, you will know what it is to rest cross-hairs on a buck's brisket and refrain from pulling the trigger. Or perhaps you have walked into your dog's point, flushed a small covey, and let them fly away.) Sagan - this last not related to 1st half of paragraph

Trout do not get off as lightly. A biologist tells me that

an angler who releases many fish "may be doing a lot more damage than the guy who catches his two trout and goes home." The mortality ranges from negligible, at low temperatures, up to ten percent when the water warms. Economically speaking, most fish populations can sustain such a harvest. Ethically speaking, however, there is no such thing as no-kill fishing.

The mode chosen -- church, state, or both -- depends on the angler. Lee Wulff may not have been aware of preaching a cultural revolution, but he helped us to consider the economic importance of trout collectively: populations, not individuals. What is good for a population, however, may be bad for an individual, and vice versa.

We hate the native in ourselves.

Laurens van der Post

Individual humans have always hunted individual prey -- deer and fish and woolly mammoths -- but until recently served them for dinner. In Dr. Luce's culture, and mine, the Bible was authority for our diet. "Peter was certainly an angler," Luce writes, "and Christ sanctioned his angling, and made use of it, when He bade him cast a hook into the sea, and catch a fish".

Joseph Campbell found similar guidance in other traditional cultures. The "basic hunting myth is a kind of covenant between the animal world and the human world," he writes in The Power of

Myth. Hunter consumes hunted, but the relation is "one of reverence, of respect." You address your prey not as "it" but as "thou," an individual close to you. When you learn to do this, Campbell writes, "you can feel a change in your own psychology."

My mother must have seen the change in me when I was a child, but she said nothing as I cleaned my catch. It was a small brook trout, until its emotional content spilled into the white sink, and I asked myself what young anglers always ask: Why did I do this?

"Angling implies the infliction of a small amount of pain, and death", writes Luce -- "but so does almost every meal we hungry mortals take." Because the consequences are an unavoidable part of getting food, fishing is not cruelty. On the other hand, Luce continues, "Angling has a psychological basis in the hunting instinct; that is why it appeals so strongly to so many folk; and that is why its tendencies need watching." Dr. Luce was an angler who also happened to be a professor of moral philosophy, and these quotations come from his essay on "The Ethics of Angling."

What Luce called "the hunter's justification" is eternal. It deals, however, with two individuals -- hunter and prey -- and not with populations of people and animals. But nature is now in trouble in so many places that hunters and fishers must be concerned about more than their own individual prey. We must also look to wildlife collectively, and the habitats in which it lives.

I saw his widowed wife as a consult in 1962 in Madison lovely lady

> The evolution of a land ethic is an intellectual as well as emotional process. Conservation is paved with good intentions which prove to be futile, or even dangerous, because they are devoid of critical understanding either of the land, or of economic land-use.
>
> Aldo Leopold[7]

President Theodore Roosevelt blazed the trail, early in this century, and Aldo Leopold drew the map in A Sand County Almanac. The book's last chapter calls for a new "ethic dealing with man's relation to land and to the animals and plants which grow upon it."

Notice Leopold's plural nouns. His "land ethic" deals with nature collectively. It does not replace the old hunter's ethic, which still guides individual humans in dealing with individual prey. The two codes of ethics may, in fact, conflict. On which do you focus: Individual or Nature? Baby duck or snapping turtle? One trout or population of trout?

Fly-fishers have taken to the land ethic (alias stream ethic), and for good reason. It has encouraged restoration of the Madison River and many other streams -- including mine. If Aldo Leopold were here, he would certainly approve of stream repair. And perhaps he would let catch-and-release rules pass as enlightened self-interest, up to a point.

Arthur Luce, the philosopher, would also have to deal with the conflict of ethics if he were with us today. He might not concede that the end (a healthier stream) justifies the means (hooking trout with no intention of eating them). Sounds like

"fishing for fun," he might say -- reminding us that trout never share in the fun.

Vince Marinaro died before I could persuade him to board his first airplane for a visit to Humility Creek, but I remember him telling me about catching a wild Letort-strain brown with fins as big as the wings of a butterfly. That fish remained an individual, not a score -- a "thou," not an "it" in Joseph Campbell's mythic vocabulary -- though it went back to breed.

But Vince also liked his trout dinners, and he had worked out his own way of reconciling the land ethic with the hunter's ethic. Often he released all his trout; sometimes he kept a few that were not of the old strain. In either case, he stopped fishing when he had caught about as many as he and his wife might have eaten.

Mind you, Vince was old when I got to know him well, and age controls appetites.

≈

JULY

(1) Billy Watson's Croker Sack. NY:Norton, 1991. p.11.

(2) Sand County Almanac, 1949. p.136.

(3) p.132.

(4) March 1, 1994. The article summarized the findings of three scientists in a current issue of Conservation Biology.

(5) Essay on Man. For this reference, I am indebted to a paper (dated 5/27/93) titled "Biodiversity and the Culture of Ecology" by Dr. Mark Sagoff of the Institute for Philosophy and Public Policy.

(6) Camden, Maine: Ragged Mountain Press, 1993. (First edition 1959.) pp.175 & 179.

(7) A Sand County Almanac, p.223.

July. 1st

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2/8/98

JULY.LFT

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July is the marrow of the season.

[Move to January: mix of meadow, marsh, brush, a little wood, and a water running through it all.

[Small predators like an ecology of edges too. Some are unnatural, like the cats; others natural in unnatural abundance, like the skunks, raccoons, foxes, and great horned owls. Before settlement, the small mammalian predators would have been controlled by larger ones, and the owl might not have found quite so much easy food. Now the wolves, mountain lions, and bears are gone.]

[End section with what the lion is doing down here. Hope it gets the deer and not the kids.]

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Anglers today release much of their catch, and wild populations are thriving. What's more, high-quality fishing in my part of the trout belt has made the new economy more prosperous than the old, with guides, shops, realtors, and builders working overtime. Elsewhere in the nation, meanwhile, the rust belt is rusting, inner cities are in trouble, and even the malls are losing customers. The shop-till-you-drop crowd has discovered fly-fishing.

You will have noticed that Lee Wulff sold catch-&-release management with the word "valuable," and my language has also come from the marketplace, to this point. No apology. The market can be -- must be -- an ally of nature. The value of the trout's pretty spotted skin has already helped us humans to save its streams.

If each fish and each angler is part of an economic resource, however, each is also an individual, and the individuals have gone through something that I had not foreseen. Two events on the same day opened my eyes.

The first jolt came when I landed a feeble rainbow with

fungus on its sides and fresh scars on its mouth. Later on, I saw another discolored fish and one that was half-blind. My last trout of the day had a section of loose gill. Those fish were, to be sure, a minority in a healthy population. Their habitat was a popular spring creek -- the kind where every rise is likely to be covered by a dry fly or nymph.

The second eye-opener came that evening, as we fisherfolk pulled off our waders. One young man reported that he had averaged four trout per hour -- a good score, he thought, but not fabulous. He would have to do twice as well to achieve a "hundred-trout day." He would release all his fish, of course. He had already released himself. His sport was immaculately conceived, free from guilt.

Mine was not. [An older friend named] Vincent Marinaro had put the remorse back in my fishing a decade earlier, when I was returning a trout to the stream despite a red stain left by my hook. I remember what Vince said, blunt and final: "Fishing is a blood sport."

It has been a blood sport forever. Some few million years ago, one of our ancestors -- yours and mine -- stuck a spear in the meatiest prey around. The fishhook took longer to perfect but, in the fifteenth century, a treatise on angling was spliced onto a hunting book, as if an afterthought.

Hunting and fishing are still the same sport at core, and letting your prey go is always an alternative. Perhaps, for example, you have rested cross-hairs on a buck's brisket and decided not to pull the trigger. That deer got off lightly, by comparison to a hooked trout.

A biologist tells me that an angler who releases many fish "may be doing a lot more damage than the guy who catches his two trout and goes home." The mortality ranges from negligible, at low temperatures, up to ten percent when the water warms. Economically speaking, most fish populations can sustain such a harvest. Ethically speaking, however, there is no such thing as no-kill fishing.

My focus, remember, has shifted from populations to individuals. Individual humans have always hunted individual prey -- deer and fish and woolly mammoths -- but until recently served them for dinner. This is the first century in which some of us (in the supermarket nations, at least) can afford to wash our hands of bloody old nature.

We still live on other life, though. Always have, always will. If you prefer, take Genesis as the authority for your diet, instead of evolution. Or read the great myths, which provide clear and compelling guidance.

The "basic hunting myth is a kind of covenant between the animal world and the human world," says Joseph Campbell in The Power of Myth. Hunter consumes hunted, but the relation is "one of reverence, of respect." You address your prey not as "it" -- a score -- but as "thou," an individual close to you. When you learn to do this, Campbell writes, "you can feel a change in your own psychology."

For me, each fish remains a "thou" if I catch only as many as my family would like for dinner. Sometimes they are tasty little trout from a stream that can spare them, in which case

they are served with asparagus and white wine and stories -- if anyone will listen. But on home stream I release the trout and keep their stories.

Mind you, restraint comes easy for a fellow who fishes often. If your appetite is greater, may you catch all you need -- as long as your prey remain creatures of flesh and blood. If they turn into scores, something has gone wrong.

[Trico time: the gauze of spinners becoming scum.]

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(1) Leave the decisions to Nature. As if Nature were what she was before Lewis and Clark.

Inconstancy makes life worth getting up for. Nature's endless imperfections come as a relief to human machines with their billions of regular hexagonal heads. The skunk's sharp teeth make ducklings beautiful. I don't know how Nature and heaven fit together, but if God is at the top of the food chain, then she must be a predator.

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For the last century (but not before), we humans have drawn a sharp distinction between dry and wet flies. Trout have not

caught up on the literature. They feed wherever their victims are easiest to catch, and in shallow, fertile, weedy streams, the surface traps a concentration of insects. Some are in the film and some just below, but they are easy to see for a trout and must get through the surface tension, which makes them vulnerable. Trout eating the insects are, in turn, vulnerable to us fly-fishers.

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Many lakes do not need catch-and-release management, and neither do some streams -- those far from a trail, for example. In such waters you can catch small pink-fleshed brook trout and serve them to your family with asparagus and parsleyed potatoes.

You can also get to know a trout by holding it under water for a moment, recovering for release. You can admire its condition, its scars, and the individual pattern of its spots. Notice the eye of your prey, too. It is not expressive, as eyes go, but it knows you are there.

[But fishing (fly-fishing especially) is ethically indistinguishable from hunting. You don't harvest trout collectively like grains of barley. You stalk them one by one.]

But Luce would have been under pressure to find some way of reconciling the old hunter's/angler's ethic with the new land (or conservation) ethic. There would be few trout left to catch if we had not saved their streams.

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