

ERNEST SCHWIEBERT

*Ernest Schwiebert guides us through
the natural and unnatural history
of one of the East's largest mayflies, the . . .*

March Brown

Illustrations by the author

*Thyse ben the flies wyth whyche ye shall angle to the
trought & graylynge. and dubbe lyke as ye shall now
here me tell:*

Marche

*The donne flye the body of the donne woll & the
wyngis of the pertryche.*

WITH THESE CURIOUS WORDS, the darkly mottled March Brown enters the history of sport. It arrives full-blown and complete in the *Boke of St. Albans* in 1496, and its rich colors suggest that it was intended to match an important early-season hatch.

The 15th-century dressing is specified for March. Five centuries later, after several changes in Latin taxonomy, we know that it was probably designed to imitate *Rbithrogena baarupi*, a darkly mottled mayfly found throughout Europe and the British Isles. It is probably the oldest trout pattern in history.

There are some obscure passages in Chinese literature of the Chou Dynasty that describe golden hooks and kingfisher feathers two centuries before Christ. Four centuries later we have a puzzling fragment of poetry from Martial. We also have the observations of Aelianus, describing both fishing and a primitive fly pattern in third century Macedonia.

But the techniques and fly-dressing instructions in the *Boke of St. Albans* lie at the threshold of modern fishing. It

is possible to tie each pattern from its 15th-century instructions. With a knowledge of European fly hatches, and the season recommended for each fly, it is also possible to speculate about the specific British insects involved.

Leonard Mascall varies the dressing described in the *Boke of St. Albans* in his 16th-century book, and Juan de Vergara has another March Brown pattern in 1623. Walton and other 17th-century writers seemingly borrowed Mascall's curious 1590 variation of the March Brown, although the inventive Charles Cotton offered this dressing late in the 17th century:

From the 16th of this month, also to the end of it, we use a bright brown; the dubbing for which is to be had out of a skinner's lime-pits, and of the hair of an aborted calf, which the lime will turn to be so bright as to shine like gold; for the wings of this fly, the feather of a brown hen is best; which fly is also taken 'till the 10th of April.

Several variations are found in the 18th century, but it was Alfred Ronalds, in 1836, who married the scientific

ERNEST SCHWIEBERT, author of *Matching the Hatch*, *Nymphs* and *Trout*, among others, is FFM's Editor-at-Large.



*Female Stenonema vicarium spinner
(Great Red Spinner), top view.*

March Browns . . .

method to fishing and fly hatches. His book, *The Fly-Fishers' Entomology*, not only imitates the March Brown and gives it a correct (but now obsolete) Latin name, but also identifies its egg-laying adults and christens them Great Red Spinners. Both popular names were widely accepted throughout the British Isles. While Halford, Dunne and the other chalkstream writers seldom mention the March Brown, their silence is not a measure of the fly's importance. The *Rhithrogena* flies are oxygen-loving insects, and their nymphs are clinging species most abundant in the swift, stone-bottom streams of Scotland, Ireland and the English counties beyond Hampshire and Wiltshire, where the chalkstream writers did their insect work and fishing.

Several modern British writers have written of the March Brown. Perhaps the best-known was Eric Taverner, whose book, *Trout Fishing From All Angles*, is among the best works of this century. Taverner also identifies the March Brown with outdated taxonomy, but his observations on these hatches still hold true on both sides of the Atlantic. Taverner describes a hatching *Rhithrogena* nymph in his aquarium:

The thorax split. The body seemed to be growing longer and longer at a tremendous rate as the dun pulled itself out of a nymphal shuck. For a moment, it stood upon its discarded skin, shook its wings out of their folds and placed them together above the thorax with their top edges slanting backwards in the characteristic manner. Never was sail hoisted more smartly!

But the famous March Brown on our rivers is not the same aquatic insect found in Europe, and it does not emerge in March. Its name is borrowed from British tradition.

Our early fishermen quickly discovered that the British March Brown imitation, with its hare's poll dubbing and its partridge hackles and wings, was a wet-fly pattern that worked beautifully during *Stenonema* hatches in late spring. Our hatch soon became March Browns too.

Preston Jennings first identified our species as *Stenonema vicarium* in his *Book of Trout Flies* of 1935. Charles Wetzel completed his little book *Practical Fly Fishing* in 1943, and identified the egg-laying adults of the species as Great Red Spinners—also employing a popular name first used a hundred years earlier by Ronalds in his British entomology.

MY FIRST ENCOUNTER WITH OUR March Browns came in the sweeping bends of Michigan's Au Sable. Below Black Bend, in the serpentine channels between Priests' Cabin and the Wakeley Bridge, the river's profile changes. Thirty-five years ago, the swift stone-bottom reaches of the middle Au Sable had marvelous *Stenonema* populations. Its March Browns were big, darkly mottled mayflies that hatched in good numbers in those boyhood springs. Their dark sailboat wings were unmistakable. The trout took them savagely, but my early experiences with the hatch resulted in puzzling failures.

There was a particular episode in a swift stretch between Priests' Cabin and Thunderbird. We had been floating the river, looking for hatches and rising fish, when we found both. Big trout were working in the shallows, and several large fish were along the cedar sweeper upstream.

"Look at those rises," I said eagerly. "Those fish are huge!"

But I failed to take them. Big flies were everywhere, and the fish bulged and wallowed among them while it lasted. Dorsal fins and spotted backs were showing like porpoises. I cast my big Adamses and Borchers' Drakes and Madsens to fish after fish. They rose greedily and ignored everything I tried until finally the Au Sable went dead. The flies had stopped hatching.

The secret lies in the complex behavior of both *Stenonema* nymphs and adults. The strong, bulging rises and the utter failure of my floating imitations should have told me the fish were on nymphs struggling to escape their skins as the swift current carried them along just under the surface.

Stenonema vicarium is a member of the Heptageniidae family. The nymphs are clinging forms, with body and thorax structures that are flattened to cope with swift, tumbling currents. Any fisherman curious enough to study large stream-bottom stones has observed these nymphs: They avoid the light, are quite agile and scuttle rapidly in any direction with surprising facility.

Relatively high oxygen demand plays a part in their selection of habitat. Swift currents also carry abrasive silts and minute stones, so the nymph's delicate gill tufts and filaments are shielded by gill covers.

Stenonema nymphs are fatter and less flat than many Heptageniidae, like their sister nymphs of the *Heptagenia* genus, and both entomologists and anglers have sometimes confused them. *Stenonema* nymphs have three strongly mottled tails with delicate filaments in each segment. The gills are protected by oval, truncate covers and are found on the first seven segments of the nymphal abdomen. The entire genus derives its Latin name from the delicate, featherlike gills near the tails. Their mottled legs are thickly shouldered and strong, with slender forelegs and feet.

The nymphs are usually found in fast water, although some populations frequent the bottom debris and weeds in highly oxygenated streams. Some evidence exists of *Stenonema* nymphs in cold lakes with sufficient wave action along shallow reefs and shores. The nymphs clamber well in any direction, but they can only swim forward, clumsily undulating their bodies to migrate or emerge.

Some observers suggest that many *Stenonema* nymphs migrate from the primary riffles and currents into the shallows to hatch. Although some related genera emerge underwater, and drift clumsily toward the surface with unfolding wings, the big *Stenonema* flies emerge close to the surface film. Emergence is often clumsy and slow. During cold or rainy weather, the hatching March Browns often have difficulty escaping their nymphal shucks. Such hatching flies often drift surprising distances before escaping their skins, and as Taverner described hatching March Browns in his *Trout Fishing From All Angles*, a freshly hatched insect often remains enmeshed in its nymphal shuck or rides it like a tiny life raft. Each of these factors has important lessons for both fishing tactics and for tying effective imitations of March Brown nymphs and their stages of emergence.

The nymphs are robust and curiously elegant. Males have body lengths of as much as 15 millimeters, while females can measure 20 millimeters in particularly fertile habitat. Tails are as long as the nymphs themselves, and are mottled darkly like brown mallard feathers or strongly barred wood duck.

The March Brown nymphs are generally dark reddish-brown on their dorsal surfaces; their eyes and thorax shoulders and wing cases are washed with dark olive.

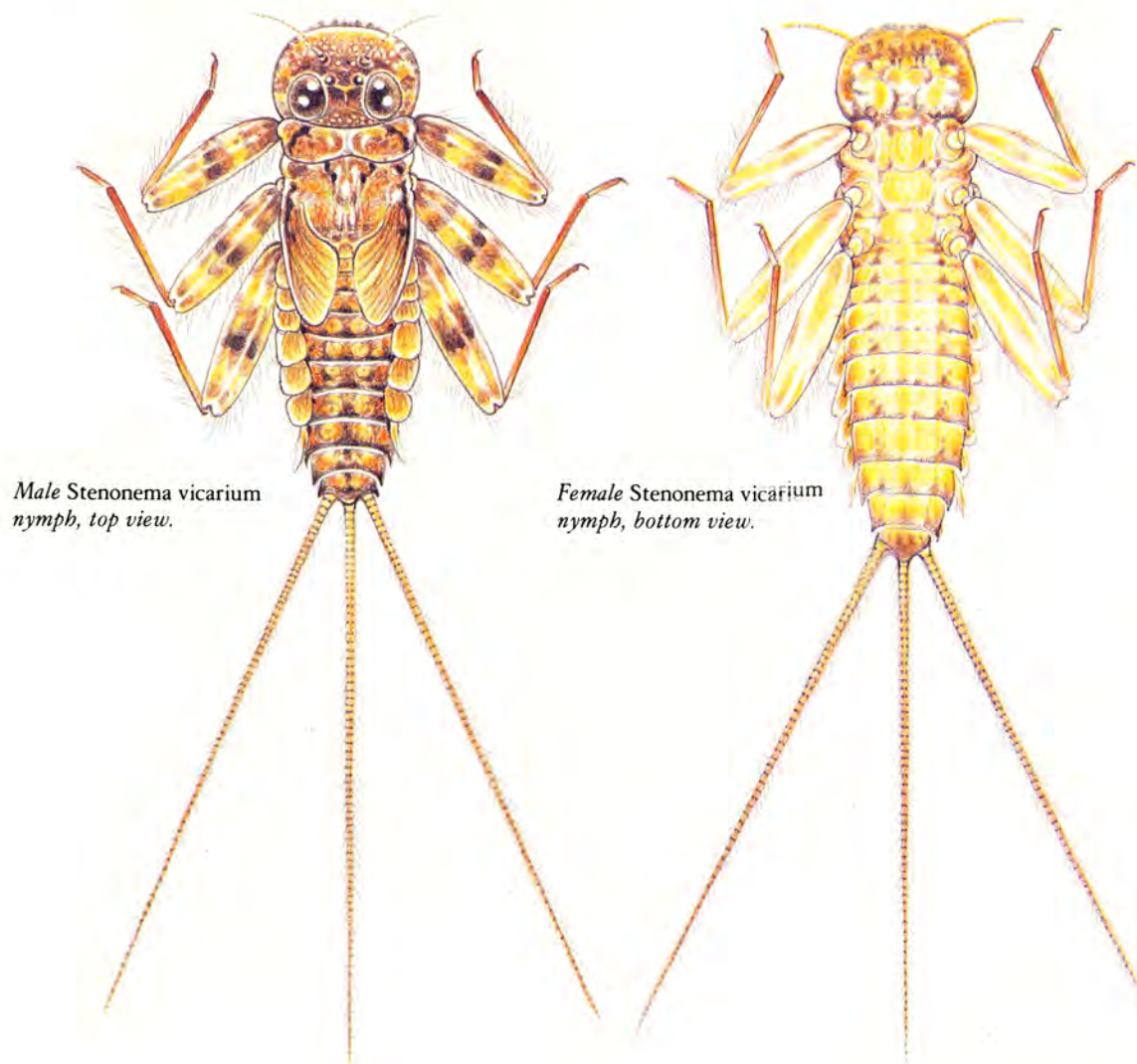
The pre-hatch-migration, hatching-drift, and emerging behavior of these *Stenonema vicarium* nymphs suggests many variations on such pattern themes. Their typical habitat in strong, broken currents demands well-weighted flies fished dead-drift. Before and during their emergence the nymphs clamber and undulate clumsily into the rocky shallows. Slightly less weight is required in shallows, and since the fish often migrate to forage on these nymphs, flies should be fished with a deliberate, slightly erratic retrieve.

Hatching imitations must simulate the March Brown nymph's clumsy, exaggerated drift in the surface film. Sometimes temperature and weather so inhibit hatching that a roughly dressed imitation, perhaps a floating nymph with a dubbed wing-ball of polypropylene or a scraggly Phillips Usual fished on dry-fly hooks in the film, are almost miraculously effective. Other conditions suggest a hatching nymph with marabou or synthetic yarn to suggest its unfolding wings. There are other times when a stillborn pattern is a solution, its looped wing pinioned in its cases and its body color partially showing above its darker nymphal shuck. The

March Brown hatch is more complicated than most, and each of its subtle stages can prove critical.

HATCHING USUALLY OCCURS sporadically throughout the day, starting about 10 A.M. Emergence can continue until early evening, although most March Browns appear after noon. Cloudy weather triggers the best hatches.

The March Brown is widely distributed from Eastern Canada to the mountain rivers of the Carolinas. Specimens are recorded from Manitoba and Quebec. Hatches in our southern mountains can occur in early May, and can straggle off until Memorial Day. Pennsylvania and New Jersey hatches usually begin about Mother's Day, and last well into the first week of June. March Browns appear slightly later in southern New England and the Catskills, and continue until the third week in June. Similar hatching chronology is observed in lower Michigan and Wisconsin, with peak emergence in early June. The March Brown appears in northern Michigan, Wisconsin, Minnesota and the border provinces of Canada in late May. Hatching can continue there until the middle of July. Major emergences are found in northern New York and New England in June, with concentrations hatching around midmonth. March Browns are found in Labrador and



March Browns . . .

Hudson's Bay drainages still later, with fishable hatches observed well into August.

The freshly hatched flies—subimagos or duns—are nearly as clumsy as the emerging nymphs. Many times I have watched hatching duns ride fifty or sixty feet of current, drying their wings and hopscoching awkwardly in their attempts to fly. Other conditions may find the duns riding their nymphal shucks, awash in their freshly shed clothing, or still half-tangled in these discarded exoskeletons.

Each condition is exciting to a hungry trout, and each suggests intriguing variations on the dry-fly theme. Simple duns coming down suggest standard dry flies or elegant cut-wing uprights with parachute hackles. Clumsily fluttering subimagos can require a less precise imitation like a darkly hackled Gray Fox Variant. Newly emerged duns still drifting with their nymphal skin are nicely imitated by patterns like the palmer-tied March Brown dun developed by the inventive Chauncey Lively and described in his charming *Chauncey Lively's Fly Box*. March Brown duns are strikingly somber, handsome mayflies. Their sailboatlike wings are held at a dramatic backward slant, and their delicate, paired tails seem quite long. The subimago flies have only two tails, while nymphs have three.

The vein patterns and coloring of a March Brown wing are elegant. Like most mayflies, the subimago and egg-laying specimens seemingly display only two wings. There are actually four wings, although the rear pair have atrophied since the time of the fossil specimens recovered from Permian shale in Europe and the United States. These smaller rear wings remain functional, however, since they overlap and reinforce the primary forewings during flight.

The head, thorax structures and bodies of freshly hatched March Browns are beautiful. The femora are more slender than the nymphal shoulders but still reflect their mottled

coloring, with distinct olive and umber markings on pale amber. The forelegs are a dark rusty-brown.

The sternum and ventral surfaces of both males and females are much paler than the image the March Brown displays in its wings and dorsal surfaces. These sternites along the belly segments, and the sternum under the thorax, are important factors in conceiving imitation. Both are amber and delicately ringed with a buttery cream color, but it should be understood that March Brown males are darker in cast than females.

EGG-LAYING FEMALES AND fully adult males are called imagoes. Anglers call them spinners because of their mating-swarm acrobatics. The popular name of these mating *Stenonema* flies is the Great Red Spinner.

Freshly hatched March Browns fly directly into streamside foliage. Depending on rain, or unseasonably cold weather, the flies take from one to three days to molt from duns into spinners. Mating occurs on warm, relatively still evenings. Twilight egg-laying starts about four o'clock when the male spinners gather as much as sixty feet above the riffles and dance in the late-afternoon light. Female spinners soon join them in their elegant rising-and-falling choreography. Mating occurs in midair with the males hanging under the egg-laden females. Actual egg-laying occurs just before sunset and usually peaks at twilight. The females flutter gracefully to the surface and ride the current for two or three feet while their eggs spill into the stream.

Unlike most mayflies, the Great Red Spinner's egg-laying behavior makes it vulnerable long before the mating is finished and most spinners fall spent on the current. The yellowish-orange eggs are not entirely extruded until each female has made several brief floats along the current. Finally, when mating and egg-laying are complete, the exhausted spinners fall, spent, into the stream.

Like the fluttering, clumsy behavior of the hatching March Browns, the egg-laying behavior of the Great Red Spinners can trigger explosive rises. The big, glassy-wing spinners are large enough to excite the waiting fish into surprisingly bold swirls completely unlike the quiet, sipping rises usually associated with spinner falls.

The Great Red Spinner is a graceful imago, bold and elegant in its mating dance. Its body is somewhat more slender than the dun's, and its delicate tails grow longer in its final molting in the foliage along the stream. The wings grow startlingly transparent, glittering and catching the changing light. Their veins are darkly outlined, and delicately flushed with pale olive along their primary edges. The thorax is amber flushed with brown, displays an elusive olive cast and, like the dun, is strongly marked. The tails are mottled and colored like dark wood duck flank feathers.

Mating swarms of *Stenonema vicarium* are usually important, even on streams that lack extensive populations and offer only sporadic fishing to their hatching March Browns. Spinner flights concentrate hours and hours of intermittent hatching activity into a single twilight period. It should be understood that most egg-laying occurs in broken water, and that spinner-fall feeding is either found there or in the currents lying immediately downstream.

AFTER THE TERRIBLE HURRICANE floods in 1955, March Brown hatches were sparse on many Eastern streams. Their nymphs survived by clinging to stones and rubble in swift currents. On little rivers like the Brodheads, the torrential rains of 1955 killed campers, destroyed railroad rights-of-way, cut bridges, shattered buildings and left dead trout lying in debris on porches 200 feet from the channel. Both fish and flies were decimated. The burrowing mayfly species were almost eradicated, but the clambering species came back quickly. Several years passed before we began to see more than traces of clinging nymph species like *Stenonema vicarium*.

"It's a popular myth," Arnold Gingrich observed on his last visit to Henryville House, "but nature is not always wise or benign."

The Brodheads healed slowly. Just when I had observed a fishable hatch of March Browns, we had a minor flood that hurt them badly again. Flies emerged sporadically each season, but they were so sparse and unpredictable that few trout seemed interested.

The stubborn river healed again. Twenty-five years after the first storm I was fishing one weekday with my friend David Rose. The day had been cold in the morning, but its chill winds dropped and a warm sun was welcome.

We shared cheese and smoked salmon and wine at the Buttonwood Pool. There had been a scattering of Blue-Winged Olives in the morning, but the fish had responded fitfully. The sun felt good when the wind finally died. Small green-bodied sedges started the hopscoch of their egg-laying, and fish took a few splashily, but without a hatch we waited. There was coffee with the last of the cheese. The sun filled the pool and its leaf-flickering shadows were dark under the sycamores. Sun spilled across the tiny swale beyond the trees. Large flat stones formed a mosaic on the bottom. Trout lay patiently over the pale gravel, and Rose filled his pipe while I watched them contentedly.

Trout rose sporadically through the afternoon. It was almost hot without the wind. We took fish with a mixed bag of patterns. Sedges and tiny beetles and ants each took several trout, and before the sun dropped behind the trees, I found a few taking leaf-rollers in the sunny lie below a stand of half-grown oaks. But we were really hoping that a warm, still twilight would surrender a mating flight of Sulphurs, and met at our picnic bench to watch for them.

The evening light was warm and wonderful. Several spinners had been gathering high above the trees, and their wings caught the dwindling sun. The swarms grew steadily, dropping lower and lower, and were joined by the fluttering females. Their ballet was growing dense just above the Birch Tree Riffle upstream.

"Are they Sulphurs?"

"I'm not sure what they are," I called, "but they're too big for Sulphurs!"

We were surprised to discover that they were Great Red Spinners, and that their mating swarms were so dense. Such swarms had been missing at Henryville for twenty-five seasons. It grew darker and the twilight was filled with dancing flies, but the Buttonwood still flowed silently, and we used the waning light to ready our spent wings. Egg-laying started just before nightfall. The big females fluttered to the surface, rode the current to deposit their eggs, and rose again into the swarms. No fish were showing yet.

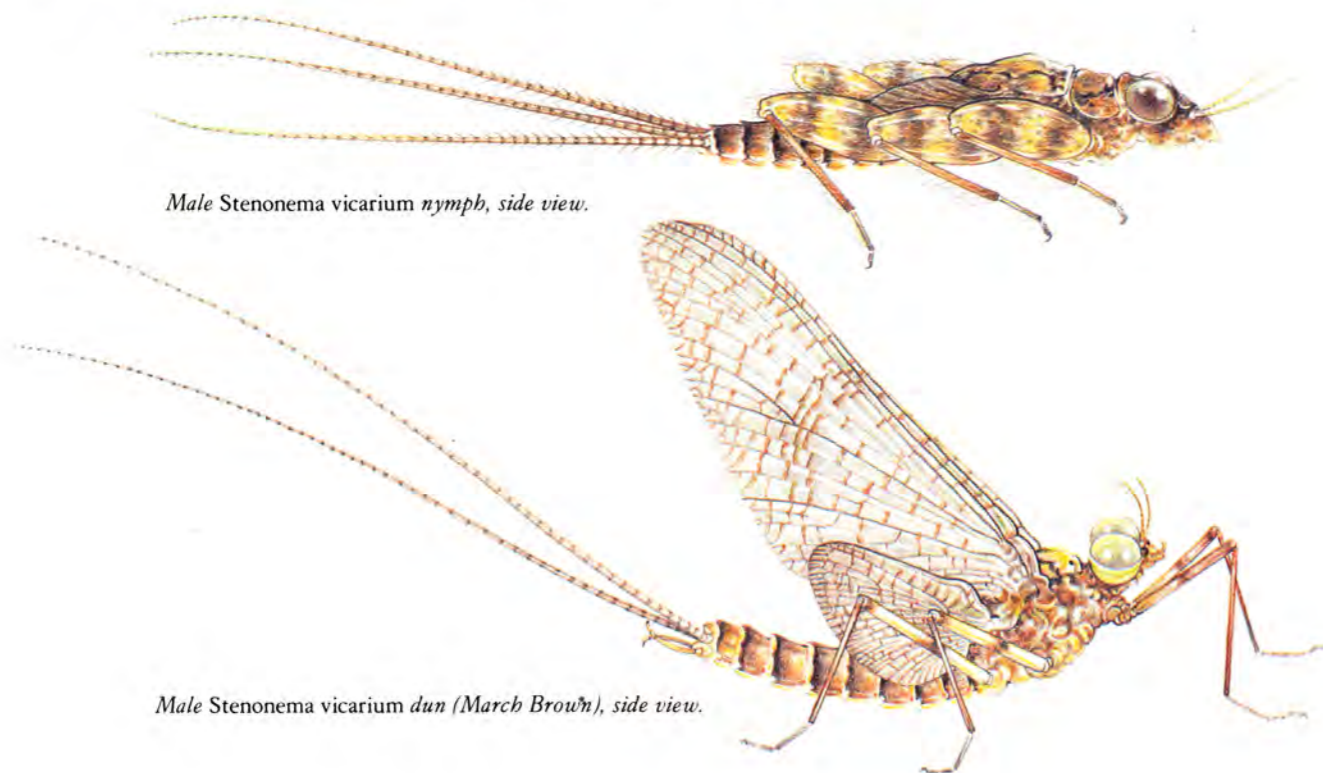
The first explosive rise came under the leaning sycamore at the tail of the flat. Another spinner fluttered down to lay its eggs and disappeared in a showy rise. But these were still only targets of opportunity, and the final rites of the mating swarm would come when most of the spinners fell spent on the currents.

We both waited for the spinner patiently, taking two or three fish that were cruising to capture the egg-laying females. One good fish took so savagely that it broke off at the moment the cast arrived. When the spinner-fall occurred in the gathering darkness, the quiet flat came alive. Strong swirls appeared everywhere. The air was filled with the sounds of rising fish. So many spent spinners were drifting in the film that the trout's bold riseforms overlapped. It was simply a matter of picking a trout, placing a spent imitation in its line of drift, hooking and releasing it, preening the fly quickly, and casting to hook another. The spinner fall was brief and we both took fish while it lasted. Before it ended, a strong fish started working just above me, and it took on the second cast. It was a bold swirl in the fading light, and the reel sounded shrilly when I tightened.

It was a fat brown that fought stubbornly and measured slightly more than twenty inches in the net meshes. The spinner imitation was solidly hooked in its jaw, and I worked it free with the forceps. The fish held restlessly in my fingers. With a sudden wrench it splashed free and was gone.

The March Browns are back, I thought happily.

Several fish were still working, but I was flushed and happy with the fishing. It had been a mixed day. At its twilight it held brief moments when the symmetry of life became more than myth: When understanding its intricate clockwork, and surrounded by its unfolding puzzles, our feelings are no longer those of mere spectators. But I stopped my casting with a fish still rising in the darkness, and we waded ashore to salute the rebirth.



Male *Stenonema vicarium* nymph, side view.

Male *Stenonema vicarium* dun (March Brown), side view.

The Missouri Nobody Knows

MID-SEASON • 1982

MAY/JUNE • \$2.95

FLY FISHERMAN

Schwiebert: March Browns

Dry-Flying Shad

Smallmouths Through the Summer

ne Harrop:
Emergers

