One of our country's leading angling learns about the feeding behavior of selective trout, the more he fishes

entomologists finds that the more he with nymphs. And the more he fishes with nymphs, the more he learns about

THE TALL WESTERN HILLS WERE springtime green, and L the surrounding alpine meadows were in full yellow bloom. Large rainbows were sipping naturals tight against grassy banks in the quiet flow of the stream. The great pink-sided fish were rhythmically sipping something-exactly what I couldn't quite figure out. They were extremely selective. I concentrated on three gray-green shadows that cruised the shallow shoreline, gorging themselves with natural flies and consistently refusing my offerings. I faced the age-old problem of trying to match a multiple hatch - a period when more than one insect is hatching and/or egg-laying simultaneously. This is a

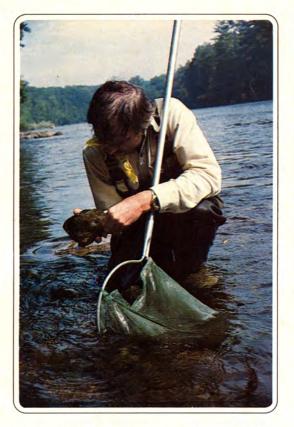
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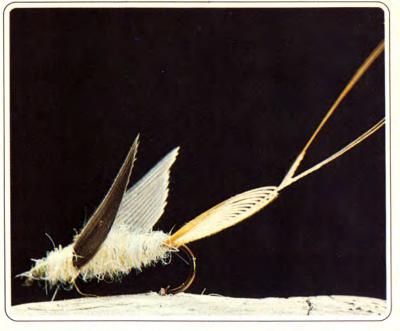
Which Nymph When?

CARL RICHARDS

This article will subsequently appear as Carl Richard's contribution to the anthology The Masters on the Nymph, edited by J. Michael Migel, to be published early this fall by J. B. Lippincott Company.

Nymphs . . .





At left, the author inspects a stream-bottom rock to determine what natural nymphs are present. Above. the author's imitation of a stillborn mayfly dun. Photos by the author.

constant battle of wits on a stream rich in aquatic insects, which often offers as many as ten or twelve choices to the trout. I had been casting over these fish for about 30 minutes with no results. There were some Brown Drakes emerging, but the fish didn't seem to be taking them - at least not my imitation of this large mayfly.

The fish seemed to be surface feeding, but when the riseforms occurred, I could see nothing on the water. This meant the naturals must be flush in the surface film or slightly subsurface and very small. There were species of caddisflies, mayflies and midges present, both hatching and egg laying. I just couldn't seem to hit on what stage of what species the fish were working.

Usually, if you try hard enough and long enough, one foolish fish can eventually be teased into striking, and after 45 minutes I finally got a 19-inch rainbow to take a small Quad-Wing Caddis. I didn't think that caddis was the main dish, but at least I had a fish to study.

I then put into use the most important piece of angling equipment to come along in years: the stomach pump. Gently I inserted the plastic tube down the fish's throat, injected a small amount of water and pulled back on the syringe. Out came the stomach contents in the precise order in which they were ingested. Now the whole story of the feeding period was an open book: small dark Baetis nymphs, the smallest, least discernible insect of this multiple hatch, and the fish were taking them on the surface before the nymphs hatched into duns.

I tied on a small, dark, well-greased fur nymph, and the feeding rainbows quickly fell for my pattern. I was no longer guessing, and I was successful.

IT IS USUALLY POSSIBLE to find out exactly what rising trout are feeding on, and it is foolish not to try to do so. Yet few anglers take advantage of this opportunity. The object of the preceding example was to impress upon you the importance of learning what the trout are feeding on, for the key to pattern selection is giving the trout what they are already taking. To use as valuable a tool as the stomach pump, you must, of course, catch at least one fish, but if trout are rising, this is usually possible.

On the stream, the nymph fisherman, or any other fisherman for that matter, is faced with either of two general situations: fish actively feeding, either surface or subsurface, to a hatch of insects; or fish not obviously feeding, and no hatch in progress (which, of course, is most of the time on most rivers). Let's look at each situation separately and see how the nymph fisherman might handle them.

Nymph Fishing During a Hatch

THE STOMACH PUMP HAS MADE nymph fishermen out of many a thoughtful dry-fly man. The pump has disproved some of the theories we had been taught were unquestionable truths. Consider, for example, the statement: "Trout take nymphs at the beginning of the hatch and duns toward the end." This is an old "truism" that is dead wrong. I have taken fish after fish that appeared to be surface feeding exclusively, only to find after examining the stomach contents that they were actually taking two or three or four nymphs and then a dun, then a few more nymphs and then another dun. This means the dry-fly, match-the-hatch angler should probably, most of the time, be fishing floating nymphs. A well-designed floating nymph is usually much more effective than a standard dry-fly imitation during the hatch.

Naturally, the pattern you select should be a close imitation of the live nymphs the trout are feeding on a fur-bodied fly with a high wing pad to simulate the wing in the process of bursting out of the nymph casing, three widespread tails and a very few leg fibers tied underneath, beard or DeFeo style. The general outline of the artificial is very important and should closely simulate the natural mayfly. These flies should be tied on 3X-fine-wire hooks so they can be fished dry and dead drift. Obviously, the artificial should be the same size, color and shape as the real nymph – never the dun. During a multiple hatch everyone-even the most expert fishing entomologist-must obtain a sample of the natural and examine it in his hand. This is the only way to be certain of a correct imitation. The best way to obtain a reliable sample is by using a stomach pump. If this is not possible (after all, to use it you must capture a fish), then other, although less reliable, methods are required.

Seine the river and see what life is present. If only one species of mature nymph is found, then you are probably safe to assume that this is the correct nymph to imitate. If many different species are present, as in the previous multiple-hatch situation that I described, you must do a little more exploring to select the correct pattern. Small, lightweight binoculars are often invaluable in discovering what surface feeders are taking. If you still can't determine what the trout are taking, wade over into the line of drift where the fish are working, even if it disturbs them, and look closely at the surface. By studious observation you may notice a small, almost invisible species of insect that actually is emerging in much greater number than the larger, more obvious flies. Many times I have found that an imitation of the smaller species is much more effective than larger patterns.

It has been well established that trout prefer to feed on nymphs just under the film and in the film rather than on fully emerged adult forms. During an emergence of natural insects, the ratio is about six nymphs to one winged dun. It's reasonable to believe that the fish have learned by experience that a nymph will take a long time to hatch, dry its wings and escape. Thus the fish does not have to hurry to capture the nymph, as it would the adult. Since large trout abhor wasting energy, they pick the food form they can sip at their leisure. It is easier for them to feed on nymphs, and they do so.

Quite often, trout that are apparently surface feeding are actually feeding on caddis pupae. These insects may be taken on the way up from the bottom or in the surface film. It is often difficult to recognize an emergence of caddis, as the adults lie low in the water and lack the easily visible saillike wings of the mayfly. In addition, they usually don't ride the film for any appreciable length of time. If fish are rising to something seemingly invisible and a few caddis are in the aireven if none are seen on the water - that is your clue to a caddis emergence. Caddis pupae are very effective when tied weighted and twitched up as a natural rising

to the surface or tied on a 3X-fine-wire hook and fished dry. In general, they should be tied with a fat, fur body, a few long legs (which also represent antennae), wing case hanging down under the body, and a darker thorax. The rise of fish to a caddis hatch is often quite baffling to the angler, and it is usually stated that this is because so little has been written about the life cycle of the caddis. However, if one checks the literature, it turns out that many volumes have been devoted to caddisflies, but they are complicated in that there are so many individual species and such a large diversity exists in their habits. One cannot, with any degree of certainty, make generalizations about the behavior of caddisflies. For instance, a great many pupae rise quickly to the surface and then emerge from the pupal into the adult stage rather quickly and fly away. Thus a weighted pupa allowed to sink and drift to the trout-taking position, then quickly twitched to the surface is quite effective. However, many other species of pupae drift in the film for a long time, and in this instance a floating pupa on a 3X-fine-wire hook fished dry is more effective. In the case of some species, the emerging pupae "run" across the surface to the shore. Obviously, imitations of these species must be fished in such a manner, which is completely different from the first two techniques.

Another complexity encountered with the caddis is that the emergence and the egg-laving flights often occur simultaneously. At this time many caddis adults dive or crawl underwater to deposit their eggs. In some instances, the angler is faced with rising pupae and diving adults - a classic wet-fly situation.

Picking the correct imitation in complex situations such as these is very difficult. The use of the stomach pump can lead to a quick solution, but if its use is not possible, only very close observation and a thorough knowledge of the possibilities will give any hope of a correct solution.

Floating artificial nymphs are, by their nature, difficult for the angler to see, as are the naturals on which the fish are actually feeding. This requires attention, and you must learn to strike gently to a false rise to avoid creating a disturbance on the water. You have to keep track of approximately where your fly is floating and gently raise your rod tip when a rise occurs in the vicinity of the artificial's position.

MIDGE PUPAE are fished much like caddis pupae, because their hatching habits are similar. The imitation of the midge is much easier to tie, being only a slim, fur body with a darker fur thorax tied under the body. They are usually much smaller (#20-28) than the average caddis (#14-20).

Most stoneflies crawl out on the bank to emerge, so a weighted imitation fished on the bottom and near the shore is effective at the appropriate time. The few smaller species of stones that hatch in the water can be fished as the floating mayfly nymphs. A fur nymph of the appropriate color and size, either weighted or on a 3X-fine-wire hook, depending on the method of emergence of the natural, is very effective.

One of the most valuable nymph patterns I use during a rise is a cross between a nymph and a newly

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emerged dun. This is called a stillborn dun or emerger. It simulates an insect that is in the process of crawling out of its nymphal shuck. Very often it becomes stuck and never succeeds in hatching; it either drowns or is eaten. Trout prefer them to the full upright duns as they seem to know they have more time to capture the stillborn. This pattern is tied with a simulation of the shuck hanging from the tail end of the fly and usually one or both wings stuck in the nymphal case. During midge hatches these stillborns are often the only effective pattern.

Nymph Fishing with No Hatch

PERIODS WHEN NO HATCH is on and fish are not obviously feeding constitute most of the time on most rivers. On all but our most fertile streams, the hatch period is only a few hours a day, so it is important to learn to take trout during the so-called dead periods. A wellfished nymph is perhaps the most effective imitation that can be used. During these dull periods, the most productive patterns are usually representations of naturals present in the stream or lake you're fishing, and which the trout are used to feeding on day in and day out. The only certain way to learn what these naturals are is to seine the river and examine rocks, submerged logs, and aquatic vegetation to see for yourself what is there. After discovering the most prevalent form, tie on a translucent fur nymph and fish it on the bottom, dead drift or crawling, as slowly as possible. Remember the current at the surface is much faster than the current on the bottom, as much as seven times faster. so what appears to be a dead drift at a seven-mile-an-hour surface current is actually dragging furiously at the bottom. Unless you can slow the fly down to the speed. of the bottom current, you will not be very effective.

These nymphs, which are to be fished deep, are usually tied on regular or heavy-wire hooks, and they normally simulate mayfly and stonefly nymphs, although dragonflies, damselflies, caddis larvae and pupae, shrimp, scuds and a myriad of other food forms may be present, and imitations of them may be effective. Here again, the stomach pump should be used once you land the first fish. What is in the fish is what you should be using. The larger the nymph form (realistically tied), the larger the trout that is likely to be taken.

Another way to select an effective pattern is by water type. Pick an imitation of a natural prevalent in a spe-

Streamside Hatch-Catchers

GARY A. BORGER

T'S NOT NICE TO fool Mother Nature, but during the L heat of the hatch she fools us more often than we'd like to admit. With the sun shining on it, the insect looks like a Light Cahill fluttering by, but once in hand it reveals itself to be a Blue-Winged Olive, a Gray Drake or some other creature.

To consistently match the hatch, you must get a specimen. Most anglers agree with the importance of capturing specimens, but the flies themselves are not always cooperative. Attempting to catch an insect in the air with your hat is only a little less maddening than trying to pluck one from the water's surface. Neither technique is very effective, and often the angler merely switches flies hoping to find the right one by the process of elimination. Valuable fishing time is lost to this hit-or-miss method.

An entomologist's net and a seine are marvelously effective, but such items are a bit impractical to carry astream. Small aquarium dip nets have not proved satisfactory, either. The hoop of the net is too small and the handle too short for catching flying insects, yet the handle is too long for easy storage in already-cramped vest pockets. What the fly fisherman needs for aerial specimens is a net that collapses for compact storage but still has a large enough hoop and a long handle. For surface sampling or for catching slightly subsurface forms, a small screen that can be used with one hand is best.

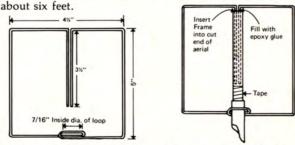
A solution to this problem came to me guite accidentally. An old radio destined for the dump offered its antenna as a telescoping handle. The plastic frame on which a child's model airplane was cast became the frame of a surface screen. Retired nylon sheer curtains supplied net bags. With a little experimenting the metamorphosis was complete, and these ugly duckling cast-offs became prized swans of handicraft-perfectly functional in use and as easily stowed as a fly box. I have since refined the construction of these items and discovered some more suitable materials.

These simple vest-pocket tools have made insect capture easy and have often helped me solve the problem of matching the hatch.

Insect Net

THE HANDLE IS CONSTRUCTED from a walkie-talkie antenna, the one I use was purchased from Radio Shack. This aerial consists of 10 segments and collapses to a length of 61/2 inches. To form the telescoping handle, extend the five thinnest segments and place a band of tape around the base of the fifth segment. The tape prevents that segment from falling back down inside the sixth segment. Cut

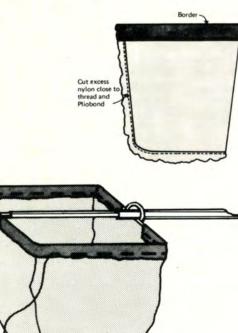
through the fourth segment at its base and push the stub of this cut end down inside the fifth segment. This handle extends to 31 inches, allowing the angler a total reach of



The hoop of the net is formed from a wire coat hanger to the dimensions indicated in the illustration. Coat the cific type of river. Our faster, boulder-strewn, freestone streams almost always have a good population of various stonefly species. Many of these nymphs are of medium to large size. Eastern and Midwestern rivers have good populations, and most larger Western rivers have huge populations. In these streams a well-tied stonefly nymph in medium to large size is almost always an excellent choice. Large fish are often hooked on weighted imitations fished right on the bottom with fast-sinking lines. Such rivers as the Big Hole, Madison and Yellowstone are famous for their hatches of the large Pteronarcys stoneflies. These giant flies are so large they resemble hummingbirds in flight. The larger species undergo a three-year life cycle, so naturals are always present in various sizes. Exact imitations are not usually necessary, especially in the faster, tumbling currents.

Just as large stonefly nymphs are good fish attractors in our many freestone streams, a large mayfly wiggle nymph, tied to resemble a medium-size (#10, 3XL) Ephemera nymph (Brown Drake or Green Drake), and the much larger (#4-6, 3XL) Hexagenia nymph are great fish finders on our larger, slower-moving limestone streams and spring creeks. These large mayfly

ends of the wire with epoxy cement and insert them into the end of the fifth segment of the antenna. When the glue has cured, remove the tape from the base of the fifth segment



ing day.

The net bag is constructed from nylon bridal veil. Nylon is best for the net bag since it is not subject to mildew or rot. Cut the material to the dimensions indicated and sew a border of seam binding along the top. Next, sew up the bottom and side of the bag, trim the excess material close to the thread and coat these seams with Pliobond to prevent unraveling. Fold the seam binding over the wire hoop and stitch in place, completing the net.

THE 4 BY 5 TO 4 BY 6 INCH rectangular holders on which plastic models are cast make fine, lightweight frames for this screen. Remove any nubs from the frame and file smooth. If you cannot obtain such a frame, bend one from a wire coat hanger, whipping the ends with cord to secure them Elevate the frame by placing two or three coins under each corner, then coat the upper surface with Pliobond. Cut a piece of nylon gauze one inch larger in each dimen-

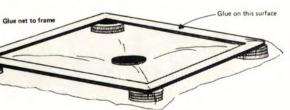


nymphs are burrowers and measure from 15 to 36 mm in length, and large fish seem to love them. The nymphs must emerge from the tunnels they have burrowed in the stream bottom often to molt and grow and thus are available to the trout even during winter months. The Hexagenia nymphs are found in silt beds, while the smaller Ephemerae require a river bottom of wellmixed sand and gravel. These Ephemera species are usually considered Eastern species, but this is wrong. Although not widely recognized, heavy Brown Drake hatches occur on some large Western rivers with suitable habitat. Imitations of these slow-water dwellers should be fished slowly, creeping along the bottom when the nymph fisherman is searching the water.

The smaller, colder spring creeks, such as Silver and Armstrong creeks in the West and the Letort in the East and other similar streams, almost always have large populations of shrimp and scuds living in their lush weed beds and lime-rich waters. The smaller fur, plastic-backed imitations fished slowly on the bottom will often turn an otherwise dull period into an excit-

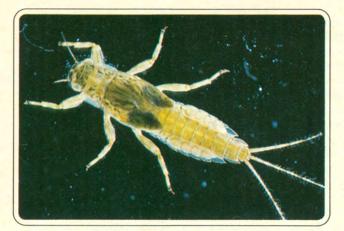
It is always advantageous to seine the stream bottom, be it freestone or spring creek, and to look closely to

Surface Screen



sion than the frame. When the glue becomes tacky, lay the gauze lightly on the frame and place a coin in it. The weight of the coin will depress the cloth, forming a slight bag that will increase the screen's effectiveness. Dampen your finger so it doesn't stick to the glue and press the cloth onto the frame. Permit the glue to dry thoroughly, then trim away the excess cloth.

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Wing pads, from which the wings of the adult mayfly will eventually emerge, are clearly visible in this photo of a mayfly nymph.

see what type of food is in the river and available to foraging fish.

No matter what order of insects your pattern is tied to represent, it should have life and translucence incorporated in its makeup – fur for the body, soft fibers for the legs (such as hen hackle or partridge body fibers) and a little gold wire for the rib. These types of materials simulate life and movement. The same flexible fibers should be used for the tails, which should usually be three in number and spread wide to imitate the naturals. Body and thorax should be made of soft, translucent fur or of a man-made fiber, such as Poly II, for life and translucence. The hard-bodied flies, which look so realistic in the hand and take so long to tie, are not, in my opinion, usually effective fish-taking imitations. Some of these exact imitations look so real in the fly box, one can almost imagine them crawling away; in the water, however, they seem stiff and lifeless.

In slow-water streams, and especially lakes, wiggle nymphs are very effective. These are tied in such a manner as to allow the abdomen to undulate up and down to simulate the swimming motions of a natural mayfly nymph. These wiggle nymphs are usually fished deep, both during a hatch and when no hatch is anticipated.

THE KEY TO EFFECTIVELY FISHING nymphs (or any imitations) is to determine what the trout are feeding on eliminate the guesswork in pattern selection and success is, if not assured, at least far more likely. If I could get the reader to do one thing, it would be to obtain and use a stomach pump; using such an instrument would teach even the most experienced angler more about trout feeding habits and their diet than any book on his library shelf. Failing the possible use of a stomach pump, the other techniques for determining what a trout is feeding on should be employed. Remember, the key to pattern selection is giving the trout what they are already taking. Learning just this has changed me from a mostly dry-fly fisherman to a floating-nymph fisherman in what I had previously considered to be classic dry-fly situations. -2

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