

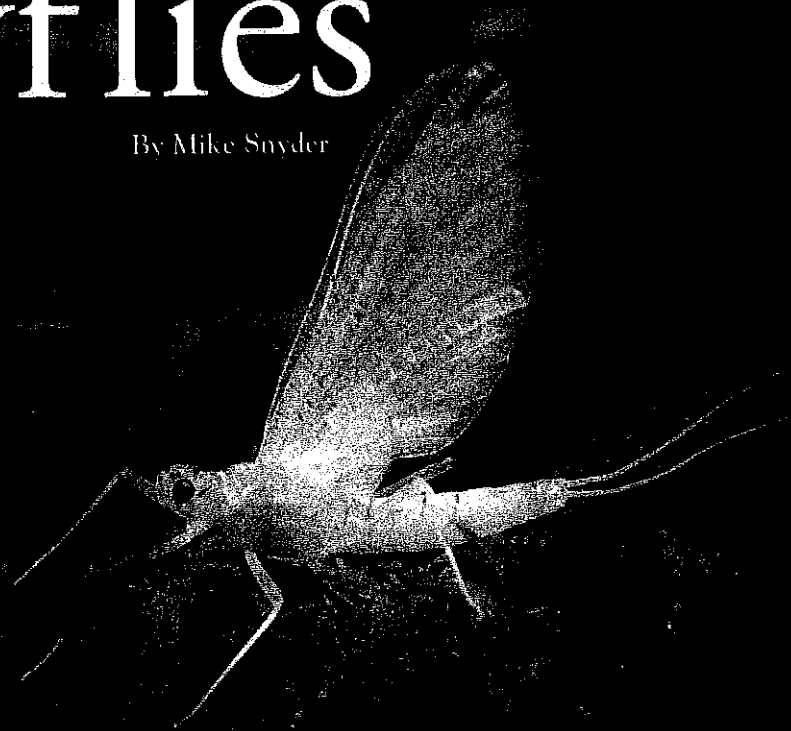
**7<sup>th</sup> Grade**  
**Packet 17-21**  
**Mr.**  
**Armentrout**

TO: All Families/Students  
FROM: Dave Armentrout *Dave*  
DATE: April 8, 2020  
SUBJECT: IEP Modifications/Accommodations

Attached are copies of the Lesson 17-21 packets. If there are any questions regarding the lessons, please do not hesitate to send me an email at [rarmentr@k12.wv.us](mailto:rarmentr@k12.wv.us) or thru the Live Grades message center which can be accessed by clicking on the System Button and then the Message Center button. If your child receives any accommodations or modifications as indicated on his/her current IEP, remember to only complete the necessary part of the pack assignments according to those specifications.

# The Lure and Lore of Mayflies

By Mike Snyder



**I**f you are fortunate enough to find yourself on a trout stream in the height of spring, you may witness one of my favorite annual events, the dance of the mayflies. These dainty aquatic creatures lead such ephemeral lives that they emerge and disappear in a single day. Mayflies are found in many West Virginia streams, but their largest numbers occur in the cold, fast-water trout streams of our eastern mountains. Knowing a bit about them can help you produce imitation flies that will have trout tugging at your line in no time.

## Mayfly Stages

Mayflies and stoneflies in their nymph stages and caddis flies in their larval pupa phase are primary food sources for West Virginia's three trout species: brook, rainbow, and brown. But since the adult winged forms of the caddis and stoneflies usually do not appear in sufficient concentrations, the lovely and

delicate mayfly garners highest honors as the most imitated aquatic insect on West Virginia's trout streams. Mayfly species top the 400 mark in North America, some appearing so briefly they are rarely seen. But certain species emerge with enough regularity each spring to be greeted anxiously by fly-fishers trying to duplicate them with lures made of fur and feathers.

The subadult winged mayflies are known as *duns*. Duns emerge onto the stream surface briefly to dry their wings before flying. While on and under the water, they are prime trout food. Once trout snatch them, all that's left is a *rise*, or ring, on the water's surface.

Those that escape the trouts' hungry mouths take to the shore. Settling in trees and bushes, mayflies transform into their final, adult stage by shedding their skins and trading their wing colors for crystalline, translucent forms. As their colors change, so do their bodies, which often become larger with elongated tails. Anglers call these adult flies *spinners*.

The adult lives of these creatures play out like a Greek

tragedy. They cannot eat because their mouths become vestigial, or nonfunctional, in their winged forms. Their primary purpose at this point is reproduction, and they will fly and dance into the darkening evening sky to achieve it. Many bird species are attracted to the dancing swarms. Swallows, flycatchers, redwing blackbirds, robins, and bats dart to and fro snagging the spinners.

Those mayflies that escape carry on their mission of species maintenance. Males and females join the tips of their abdomens together to fertilize the eggs. Then, nearing the end of her life, the female jettisons her tiny eggs over the riffles of the rolling waters. The eggs move downstream, sinking to the stream bottom. Finally, both male and female spinners fall to the stream and die, their wings spread flat on the water's surface.

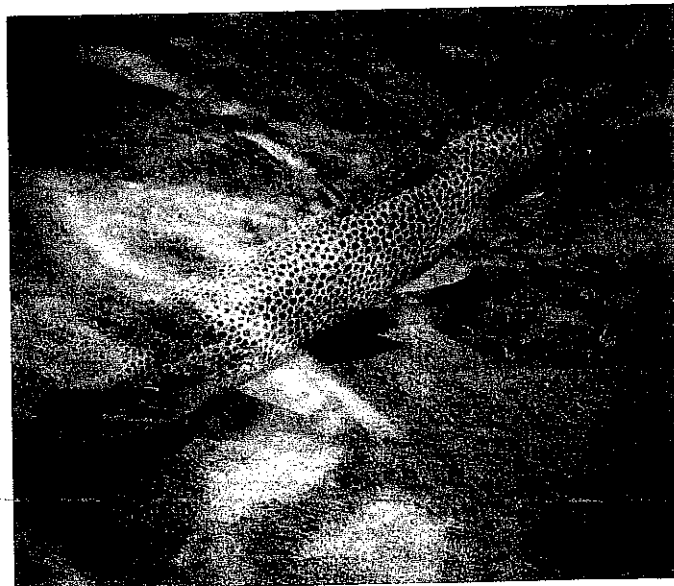
If the mayfly eggs don't get smothered by silt or otherwise perish, they soon hatch into tiny nymphs and hide under rocks and other stream bottom structures. They grow for the next year, periodically shedding their exoskeleton casing. As they increase in size, they, too, become an important food source for trout. Fishers take note: you can catch more trout on nymph imitations than on dry flies because they are eagerly taken by hungry fish swimming along the stream bottom.

### The Best Species for Imitations

Each mayfly species has its own emergence dates—some when the first leaves burst open, others with the pear and apple blooms, and some later, when the locust tree blossoms. I (and many other fly-fishers) have recorded the dates when a dozen or so principal species emerge each year at about the same time. Some species appear annually for up to a week or more at a time. These are the ones imitated by fly-fishers.

Mayfly species can be categorized by dark, medium, and light color. Sizes vary substantially. The tiny summer mayfly Tricos\* (*Tricorythodes*) grows to just three or four millimeters, while West Virginia's largest mayfly, the Green Drake (*Ephemera guttulata*), can grow to more than 25 millimeters.

Darker-colored mayflies start appearing in April. The Quill Gordon (*Epeorox pleuralis*) is the most noteworthy because of its relative size and its numbers. One April many years ago, for example, I noticed a hatch of Quill Gordons emerging on the



Laurel Fork. Numerous stocked brook trout started rising after this fly. A suitable, size 12 imitation pattern was soon on the end of my leader. To my delight, the hungry brook trout took my drifting dry fly without hesitation.

I kept four of the nicer fish and then reluctantly left the trout rising to go back to work. Later, I kicked myself hard for leaving the stream when the trout were rising. I never made this mistake again. Ever.

Medium-toned mayflies are best represented by the tannish Gray Fox (*Stenonema fuscum*) and darker-shaded March Brown (*Stenonema vicarium*). I fell in love with the latter when I blacksmithed and tended sheep on a farm tucked away on the banks of the Laurel Fork. The river is regarded as one of the state's most scenic, but it is considered only a so-so trout stream. However, the Laurel bears good quantities of March Browns. Gray Foxes and March Browns are top trout producers in West Virginia streams in early May.

I created my own imitation of this fly, called the Fastwater Brown. Its dressing, tied to a size 10 hook, is worth noting. The tail is made of groundhog tail fibers and the body is made of beaver fur and the intertwined hackle feathers of Barred Rock and Rhode Island Red roosters. From experience, I know this pattern takes trout into the summer as well.

One evening in late May, I jumped a big brown trout while wading upstream in a fork of the Cheat. In an instant, the fish disappeared. Farther upstream I saw a trout rising below a large slanting beech tree. A steady hatch of Gray Foxes drifted downstream in the slow current. When I moved into casting range, I could make out the reddish-brown back and dorsal fin of a large trout rolling into the air as it took the mayflies from the surface. It was the same brown I had jumped earlier.

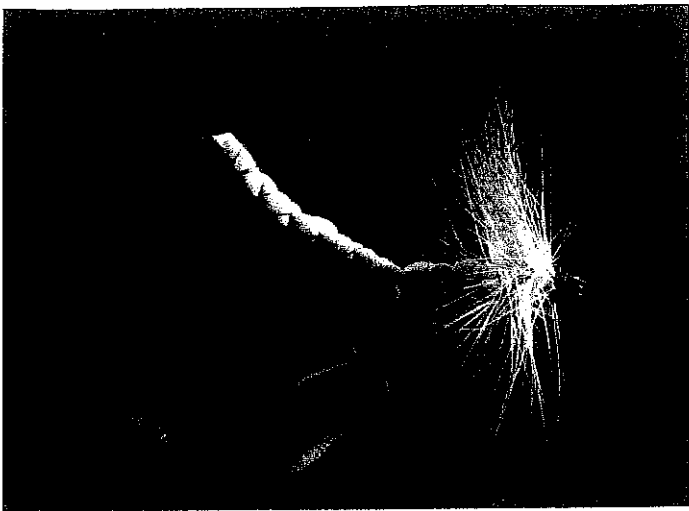
My size 14 Gray Fox landed softly several feet above the feeding trout and drifted down past the fish. (A dry fly must be cast delicately and drift without any drag in order to fool a trout under such conditions.) I did this several more times over the regularly rising trout without a strike. But on about

A "freshwater JAWS" is how WVDNR Stream Restoration Program Manager Steve Brown describes this big brown trout awaiting its next mayfly meal.

© Steve Brown

(Previous page) The Light Cahill is an easily identifiable and much imitated mayfly species. © Steve Brown

\*Note: Many mayfly species have become synonymous with the name of the imitation flies created to resemble them. While we do not normally capitalize the common names of plant and animal species in our stories, it is common practice to capitalize fly pattern names and thus we have done so here.



the fifth cast, *Wham!* The big trout took the Gray Fox solidly. The fight was on.

The brown zoomed up- and downstream, giving me all the battle my deeply arcing rod could handle. Finally, the three-pound, golden-bronze beauty came to my net. It topped the 20-inch mark, a dry-fly trophy I've never forgotten.

### Masses of Mayflies

The last group of mayflies is pale colored. The smallest of these is a prolific fellow called the Pale Evening Dun (*Ephemerella dorothea*). Many anglers refer to this dun as the *sulphur* because of its yellowish color. Sulphurs actually comprise several species of different sizes, all of which may be on a stream at the same time. So many of these duns can emerge in an evening that trout have little trouble filling up on them.

The pale shade group also includes the easily identified Light Cahill (*Stenonema canadensis*), a medium-sized mayfly (10 millimeters) with a creamish-tan body and yellowish wings. This fly has a topnotch pattern that will take trout on any waters.

All of West Virginia's mayflies emerge in the stream current except one, the *Isonychia bicolor*. This is the only mayfly nymph that crawls up the sides of rocks. These nymphs quickly split open their outer shuck and fly away. Their dark mahogany cases of about 20 millimeters in length can be seen on some streams all summer long, often numbering in the hundreds along some stretches of water.

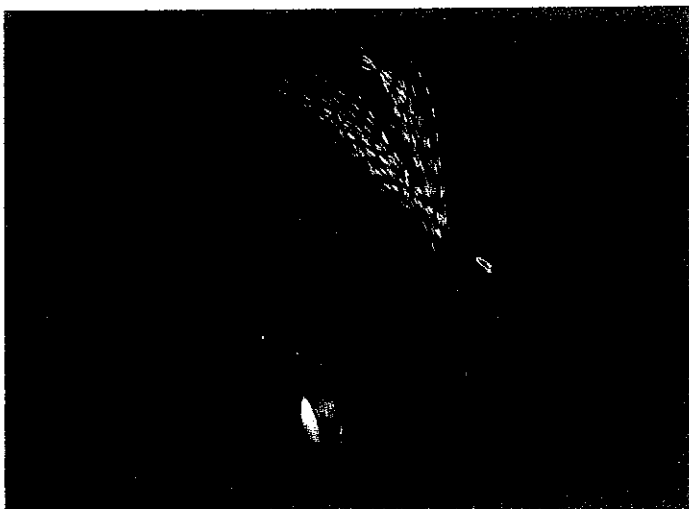
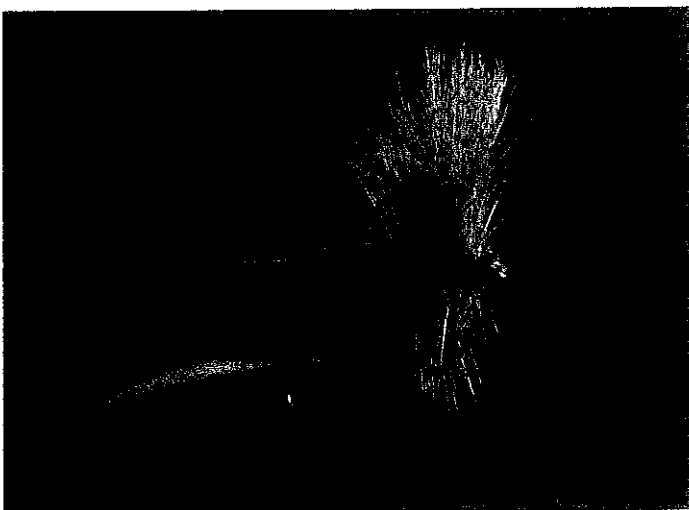
Sometimes mayflies hover over roads in river valleys, particularly at last light. Windshields and grills of vehicles often become covered with them. So dense are the flies, in some cases, that drivers must stop their cars to clean their bug-smearred windshields.

These mayfly masses, however, can be great for fly-fishers. One night during the last week in May on the upper Elk, friends and I noted a hatch of three or four different species coming off the water in a veritable mayfly blizzard. There were Pale Evening Duns, Light Cahills, Gray Foxes, and the big, showy Green Drake.

The three fishermen in our group recorded 70-some strikes from trout that boiled the water in a feeding frenzy. We caught and released trout until dark. Most of them were strong, full-colored wild browns and great fighters, with some in the 17- to 18-inch class. We landed less than half of those that struck at our flies. The fly pattern that produced best was a size 14 cream parachute, but it did not fool the majority of the fish.

It was the most exciting evening of dry-fly fishing I've ever experienced. Such an evening can only occur when the mayflies are dancing on the water, the trout are leaping after them, and you are blessed to be there with your fly rod and your friends.

So go ahead. Get out on the water. You may get lucky too. 🐟

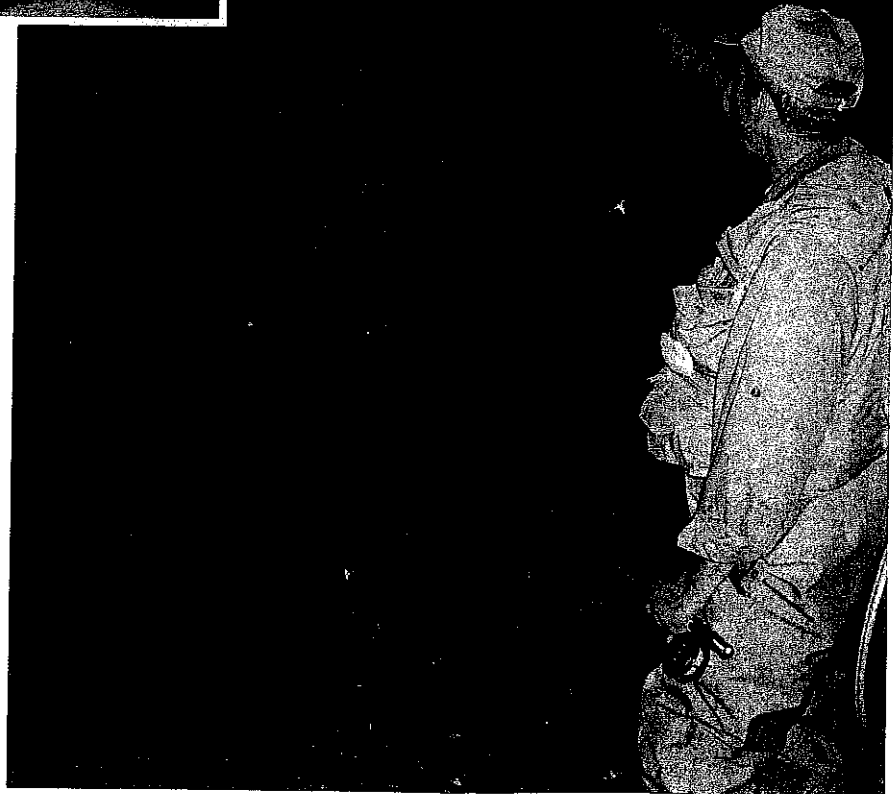
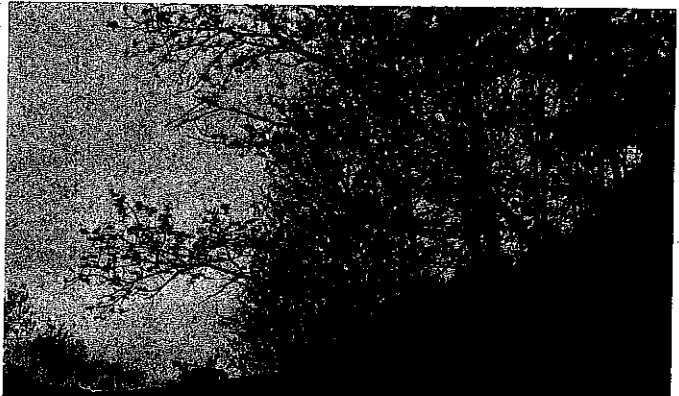




(Previous page) Flyfishers seek trout with a wide array of lures designed to resemble mayflies. Pictured are the Green Drake (top), Quill Gordon (middle), and Tannish Gray Fox (bottom). © Clayton Spangler

4 Author Mike Snyder catches trout with his Fastwater Brown, made of groundhog and beaver fur and rooster feathers. © Jill Snyder

7 There's double delight for this fly-fisher: a mayfly hatch above a stream and a beautiful sunset. © Steve Brown



Read more at e-WV: The West  
Virginia Encyclopedia.  
[www.wvencyclopedia.org](http://www.wvencyclopedia.org)

*Mike Snyder caught his first trout in the Laurel Fork in 1956. A decade later, he became a fly-fisher. Today, he continues his pursuit of trout and teaches others how to fly-fish. Mike lives a stone's throw from the eastern continental divide in Randolph County and is a regular contributor to Wonderful West Virginia.*

## Questions for The Lure and Lore of Mayflies

1. Who is the author of the article?
2. What does the word "ephemeral" mean?
3. Where does the largest number of West Virginia Mayflies occur?
4. What are the two primary food sources of the brook, rainbow and brown trout?
5. How often do mayflies appear on WV streams?
6. What are some materials that fly-fishers use to duplicate the mayfly species?
7. What are duns?
8. Why do the duns briefly emerge onto the stream surface?
9. Why does the author refer to the lives of mayflies as a "*Greek Tragedy*?"
10. What do the words "translucent" and "crystalline" mean?
11. What are spinners?
12. Why do the mayflies not eat?
13. What is the primary purpose of the mayfly in its winged form?
14. What bird species eat the mayflies as a food source?

15. How do the male and female mayflies fertilize their eggs?
16. What do the mayfly eggs hatch into?
17. What is the author's tip on catching trout?
18. What are some emergence date signs to look for?
19. How are mayfly species categorized?
20. What is the smallest mayfly called?
21. What is the largest mayfly called?
22. When do darker colored mayflies begin to appear?
23. The author refers to a river that is regarded as one of the state's most scenic. What is the name of that river?
24. What are the names of the two flies that are top producers of trout in early May?
25. What is the name of the smallest pale-colored mayfly called?
26. In what year did the author catch his first trout?
27. What is the name of the only mayfly that does not emerge within the stream current itself?
28. What does the *Isonychia bicolor* do that other mayflies do not?
29. What do you think the author meant by stating, "*coming off the water in a veritable mayfly blizzard?*"
30. What was the name of the magazine from which the article was taken?