Federation of Fly Fishers Fly of the Month

Gary LaFontaine's Sparkle Pupa (s) May, 1998
Scientifically designed

Successful fly patterns traditionally have been "invented" by trial and error, hunch and guess. Why they work is often based upon so-called common sense explanations, without any proof. The caddis patterns developed by Gary LaFontaine are a notable exception. Gary, a psychologist with faith in the power of the scientific method and a keen interest in animal behavior set out in the early 1970’s to find out why fly anglers had so much difficulty catching trout during a caddis hatch.

To do this he (1) used scuba gear to observe trout feeding underwater during caddis hatches over an extended period, (2) made notes on the most striking features of the caddis (in larval, pupa and adult stages), (3) designed flies that captured those features and (4) formally compared the behavior of the trout for those newly-designed flies and the naturals, (5) made modifications until he found a successful pattern (as compared to earlier patterns). This multi-stage process is basically the so-called scientific method and the result was a whole new set of caddis fly imitations and even better, an understanding of why these flies work.
Within the confines of this short discussion, the key findings of Gary’s work were two-fold. First he found that trout feed mainly on emerging caddis, even during presence of adults. Second, he found that there was a major feature of the emerging caddis that was critical, namely the air bubbles that surround the sheath and reflect sunlight. He was able to achieve that reflecting air bubbles by using a material called Antron, made by DuPont.

Gary devised two emergent patterns. The Deep Sparkle Pupa matches the pupa as it first emerges from the cocoon and drifts along the bottom (it is weighted) while the Emergent Sparkle Pupa matches the insect as it drifts in the surface film, before escaping the sheath.

If you fish caddis hatches and have not used the emergent sparkle and deep sparkle pupa, tie some up. You will be very glad you did.

MATERIALS

HOOK: Mustad 94840 (or any dry fly hook)
WEIGHT: None for the Emergent Pupa, lead or copper wire for the Deep Emergent Pupa
UNDER BODY: One-half Sparkle yarn (Antron) and one-half fur (with colors to match caddis – Brown, amber, dark gray, ginger)
OVERBODY: Sparkle yarn (Antron) in same color as yarn in underbody
HACKLE: Only in Deep Pupa: Grouse or lemon wood duck fibers to match fur color
WING: Only in Emergent Pupa: Speckled tips of deer body hair (light or dark in conjunction with the fur color)
HEAD: Marabou strands in colors to match the fur underbody

TYING INSTRUCTIONS:

(Note: Steps 2-16 and 19-21 are the same for both flies)

1. DEEP PUPA ONLY: Weight straight portion of the hook shank by tying in wire along the underside of the shank and wrapping the rest of the wire around the shank.

2. START EMERGENT PUPA HERE: To start the overbody, separate one ply from the four-ply yarn (and for very small flies even pull the single ply in half).

3. Completely fray one end of the yarn piece with a fine-toothed comb (either a No. 9 Ace comb or a mustache comb)

4. Spread the strands sparsely on top of the hook shank.

5. Tie down the strands at the bend of the hook.
6. Trim the stubs over shank (leave the frayed piece dangling off the rear of the hook for the moment).
7. Repeat the procedure for steps 2-5 and tie down a second ply of yarn to the bottom side of the hook bend and leave this second piece of yarn dangle off the rear of the hook.
8. Dub the chopped blend of sparkle yarn and fur onto the thread for the underbody.
9. Wind the body three-fourths of the way up the shank.
10. Pick out the thin underbody to make it shaggy.
11. Pull the top strands of Sparkle Yarn overbody forward.
12. Spread the strands evenly and sparsely over the top half of the underbody.
13. Tie down the strands in front of the underbody.
15. The overbody now covers the entire underbody in a sparse envelope—the key word is sparse. Before trimming the excess stubs in front of the tie off, take a dubbing needle and pull the overbody even looser.
16. Trim the stub.
17. DEEP PUPA ONLY: HACKLE: Tie in a few long wisps of soft hackle fibers, allowing them to sweep back along the lower half of the fly on each side.
18. EMERGENT PUPA ONLY: WING: With a scissors point, pull free some of the strands of the overbody so that they dangle off the back. On the Emergent imitation this represents the loosening sheath of the emerging pupa. Clip body hairs from a deer skin and Level the tips in a hair tamper. Tie a short wing on top of the hook with the hair. Trim the stubs.
19. Tie in four or five strands of marabou for the head
20. Wrap the strands clockwise onto the thread (forming a rope).
21. Wind the covered thread to the eye. Whip-finish and cement thread.

Tying steps adopted from Gary LaFontaine’s book, Caddisflies.

Please Credit FFF Website or FFF Clubwire with any use of the pattern.
You can direct any questions or comments to FOM at flyofthemonth@fedflyfishers.org