All that glitters:

How to make your fly irresistible to trout

By Ralph Cutter

Most aquatic insects create or trap bubbles of gas at some time in their lives. These bubbles are utilized for respiration, buoyancy, and as an aid for escaping the sub adult form. Whatever reason these insects use bubbles, all reveal themselves to trout as dazzling, quicksilver images that appear to glow with an inner light. Bubble encrusted insects look like living jewels. Bubble encased bugs are extremely visible underwater and trout often swim right past other food items to snare a glittering insect. Many times trout will key in on and only feed on sparkling insects. When the time is right, bubbles trigger takes. It's as simple as that. Beads, reflective plastics and multi lobed fabrics have been used to imitate aquatic air encrusted insects. As good as these materials are, they fall far short of how good they should be. Hundreds of hours diving in both lakes and streams observing trout feed has convinced me that bubbles are simply too important to imitate, they must be captured.

The best way to make bubbles cling to flies is to do what living insects do. Bubble capturing insects are covered with thousands of wax coated unwettable hairs that actually repel water from the body.

Note the brilliant air bubble carried by this Corixid.

The first time I rubbed bees wax into a hares ear and tossed it in the water, I knew I'd found the answer. The nymph glittered like a diamond and the bouyancy of the air crust caused the bug to swim and drift in the current like a creature come to life. It was too easy.

After ten years of refining these "glitter bugs" and testing them under a myriad of conditions I've made some pretty pat conclusions:

1. First of all, they work. When shimmering insects are active these "glitter bugs" outfish any other pattern. I've repeatedly observed sophisticated trout pull off their feeding lane to chase down an air encrusted nymph pattern.
2. The best bubble trapping nymph/pupae/boatman patterns are the LaFontaine Sparkle Pupa tied with wool rather than Antron or a Birds Nest. Both the Bird's Nest and the Sparkle Pupa have an over body that acts as a cage which holds the bubble against the body of the fly.
3. Glitter bug patterns are best tied with natural materials containing lots of fuzz or spike. Natural materials absorb floatant and the coarse structure of the natural filaments help entrain bubbles.
4. The most economically realistic and easy to apply bubble producing product is sold as Tite-Line Dry Fly Powder which you vigorously scrub your nymph in, or Orvis Ultra Float which is an aerosol fly float. Liquid floatants don't last long and make the fly sticky. Paste, grease and wax products mat the hairs resulting in a loss of bubble grabbing potential.
5. Dry the nymph between drifts with false casts. When the bug becomes waterlogged treat it with a dessicant/floatant such as Loon's Top Fly or Shimazake.
6. Do not weight the fly itself. Allow the bouyancy of the trapped air to "swim" the fly naturally in the current. Use split shot a few inches up leader to take the bug to the desired depth

Adult damselflies cloak themselves in air and descend underwater to lay eggs.

Some caddisfly larvae capture bubbles of air and hitch rides with the currents. I've watched both Brachycentrus and Amiocentrus caddis larvae drifting, often in large numbers, with a single small bubble clutched within their legs. In our flyfishing school's "bug tank" (an eight foot, 300 galaquarium recirculated at 4,000 gallons an hour by half a dozen pumps) we've had shoals of Brachycentrus bobbing around the current on bubbles they've harvested from fizzing air stones.

Caddis pupae sometime generate bubbles within the pupal sheath as they prepare to "hatch" into the adult form. These bubbles can appear anywhere on the bug, but are most common on the dorsal aspect just behind the head. The pupae are erratic but very strong swimmers and the imitation is best presented with an active twitchy retrieve or with a down and across stream swing.

Most of the students in our school seem to be aware that at least some caddis pupae generate bubbles during emergence; however, in my experience, the egg-laying adults are far more dramatic and enticing to trout.

Caddis pupae swimming to the surface. Note the two distinct and brillant bubbles carried over the "shoulders" of the pupae. This is the first known photograph of this behavior. Shot taken June 15, 1998, Manzanita Lake, CA.

Many caddisfly adults lay their eggs subsurface. Lacking gills, they must transport their air supply underwater with them. The entire insect becomes encased in an incredible shimmering sheath of air, which allows them to labor underwater for extended periods. This bubble, called a plastron, absorbs oxygen from the surrounding water as the insect breathes from its store. (Ovipositing aquatic moths do the same).Ovipositing caddis swim in very smooth and swift fashion. . . a down and across stream swing is a perfect presentation. When a major ovipositing is taking place, trout will often ignore swimming caddis and simply graze on the myriad of bugs clambering over the riverbed. I've watched trout even pluck empty bubbles trapped under and against rocks and logs. The best presentation in this situation is a drag free drift of an air coated nymph right along the riverbed.

At least a few emerging midge pupae fill their pupal sheath with gas. Unlike caddis, they do not actively swim but simply drift and squirm as they are buoyed to the surface. When viewed from below, blood midge pupae look like orange sparks drifting from a campfire. A brassy is an excellent imitation as is a simple tuft of orange squirrel dubbing treated with Dry Fly Powder or Ultra Float. These are deadly when drifted under a long light leader (use split shot to keep the air shell from floating them on the surface).
Mayfly nymphs fill their exoskeletons with gas to aid in emergence. I've watched Callibaetis and numerous Ephemerella hang in the surface film aided by the buoyancy of their gas-filled exoskeleton. When viewed from above they appear quite normal. From an underwater vantage these emergers glow golden particularly around the edges as sunlight reflects from their taught bodies. When the nymph pops open, the exoskeleton relaxes, loses its shine, then quickly assumes a shimmering glow as the adult pulls free from its translucent, frequently bubble filled nymphal husk.

One of the most amazing yet underutilized "glitter bugs" is the Baetis spinner. Many Baetis mayflies are unique in that the adult females (spinners) crawl underwater and affix their eggs to streambed structure. For some reason, the females will often be joined underwater by males (mating occurs above water). These mayflies trap a bubble of air between their upright wings and look like tiny angels as they roam about the streambed.

Male Baetis spinner underwater during an ovipositing melee. Air is carried between the wing to allow the terrestrial insect to breath

Baetis spinners are very buoyant and seem to have a difficult time retaining a foothold on the streambed. They very deliberately pick up and place one foot down at a time; sometimes they will reach out with a foot and tap the substrate in front of them as if they are testing for the best foothold. When they get lost to the current it is all over, they don't struggle, swim, or attempt in any way to save themselves. Baetis spinners are unique in that they fall up.

Baetis drift upwards wings first. When they hit the film, they immediately get flipped and adhere to the meniscus on their sides. The spinners that reach the surface are stuck under the film, making them nearly invisible to the angler looking down into the water. Clots of Baetis spinners will float up and collect under rock ledges, undercut banks and any other overhead trap. Trout will take Baetis spinners in current seams and other "typical" feeding lies; however, most fish will graze along the riverbed or move to the Baetis traps during a heavy ovipositing.

Ovipositing Baetis are easy to imitate. They can be fished dead drift anywhere in the water column but are most effective along the streambed.

In waters with backswimmers and water boatmen, glitter bugs will work any time because trout see these plastron-carrying insects every day all season long. In other waters, glitter bugs are most effective during emergence or egg laying. When insects are found entering or leaving the water, it's a good bet trout are seeing diamonds before their eyes and your air bejeweled fly is a sight for sore lips.