

*An understanding of the damselfly's life cycle can improve your angling because trout keep their eyes open for*

# Damsels in Distress

GARY A. BORGER

I REMEMBER HAVING cursed the wind on many past occasions, but now I wanted it to blow. My wish was soon realized; a mountain breeze ruffled the lake and gusted suddenly, causing the pond weed to flutter. I stripped line from the reel and watched. There they were—head and tail rises just beyond the weeds; big trout feeding greedily. I dropped the fly several feet ahead of a rise, and the fish rolled up and was hooked. When the wind stopped, so did the feeding, but with each new gust I took several fine trout on the adult damselfly pattern.

These insects belong to the order Odonata. The oldest order of insects, its members were here to see the rise and fall of those great land leviathans, the dinosaurs. The Odonata, too, were big in those days. Fossils with 27-inch wingspans have been found. Today's versions are much smaller but are still sizable insects. Both damselflies and dragonflies belong to this order. The damselflies are separated and placed in the suborder Zygoptera.

THE LIFE CYCLE of the damselfly is incomplete; that is, there are only nymphal and adult stages. The nymphs are aquatic and are quite easily recognized. Three paddle-shape gills occur at the end of the long, slender abdomen. The short, husky thorax bears the wing pads and long, rangy legs. The head is short, but the bulging compound eyes make it wider than the thorax. Nymphal color is variable, not only from species to species, but to some degree between individuals. The body color

can change somewhat to match more closely the color of the bottom the insect inhabits, but most nymphs are shades of olive, olive brown, tan or purplish brown. Overall size ranges from 15 to 30 millimeters.

Damselflies are denizens of ponds, small lakes and quiet-water areas of streams and large lakes. They are crawlers or swimmers, moving about near aquatic plants and bottom trash in search of food. Damselfly nymphs are not at all as dainty in their feeding habits as their name might suggest. In fact, they are fierce predators, attacking and devouring small species of insects, worms, mollusks and crustaceans.

Most damselflies have a one-year life cycle, but in several prolific subspecies there can be two or more broods per summer. At maturity, the nymphs leave the protection of the vegetation or bottom trash and migrate to shore, swimming along just under the surface. They use the paddlelike gills to aid in propulsion, wiggling their bodies in a most minnowlike fashion. The nymph swims a foot or so, then stops and rests for a few moments before repeating the process. The legs are held out to the sides as the organism swims. The wiggle must be most provocative to the trout, for the fish often roll and splash as they rush to grab the migrating nymphs.

The actual date of hatching varies with the species and with elevation and latitude. Generally speaking, June and July are the prime months to experience the damselfly emergence.

Once they reach shore, or a protruding stump or boulder, they crawl stiff-legged from the water and, in preparation for hatching, fasten their feet to any handy, vertical surface. I've even had them climb out on me and hatch on my vest. As the nymphal husk dries, it

splits between the shoulders and the adult emerges. First the thorax and head are pulled out. These are followed by the legs and wings, and finally the abdomen. The newly emergent adult is soft and pale yellow in color. When its wings have expanded and dried, the adult flies awkwardly away to the protective cover of nearby vegetation. Strong winds during the emergence period often dash the newly emerged adults to the water. Trout seize them readily. After a day or two, the body hardens and takes on full adult coloration. Males are often bright: emerald green with black wings, bright blue with clear wings, red with red wing bases, and so on. Females are usually dull colored: olives, browns, tans, pale yellow and others.

Adult damselflies have long, slender abdomens and two pairs of wings. The fore wings and hind wings are

equal in width and in many species are strongly pinched at their bases, giving the appearance of a yoke. At rest, most species hold the wings slanting back along the top of the abdomen. The legs are adapted for clutching, not walking, and the insect must rest on small stems. Its eyes are large and separated by a distance greater than the diameter of one eye, a characteristic that distinguishes the damselflies from the dragonflies (whose eyes touch or nearly touch on top of the head). Damselfly adults are 25 to 50 millimeters long.

ALMOST WITHOUT exception, adult damsels are on the wing only during sunny periods of the day, and then only in sunlit areas. If a cloud should momentarily cover the sun, they disappear as if by magic. They are weak fliers and are normally seen fluttering about quite

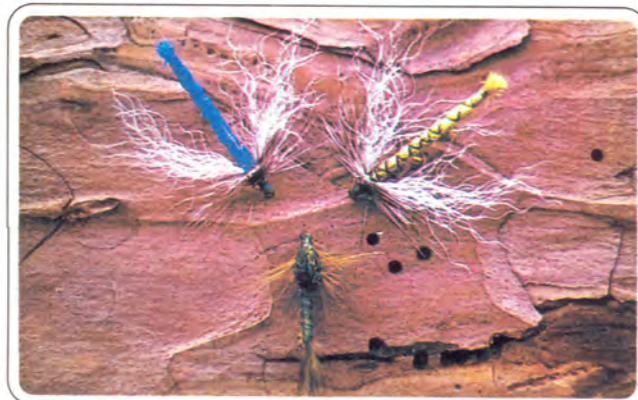


*Damselflies are typically found in lakes and ponds, and sometimes in slow-moving streams.*





Large trout, such as the rainbow above, can be fooled by the appropriate damselfly imitation. Below left, natural damselfly nymphs; below right, the author's favorite damselfly patterns, which are described on the next page. Photos by the author.



close to the water. They feed on small insects such as mosquitoes, capturing and eating them while in flight. Damsel adults live for several weeks.

Mating occurs near the water. First, the male deposits a sperm packet in a special chamber on the underside of his thorax. When he finds a mate, he uses the claspers on the end of his abdomen to grasp her just behind the head. She then folds forward under the male and takes the sperm into the end of her abdomen.

Eggs are injected into the submersed portions of aquatic plants. The male retains his mating hold on the

female, and the two of them fly in tandem to a weedbed. In most species, the male lands on a weed and lowers the female partially or wholly beneath the surface. The common Black-Winged Damsel (*Calopteryx maculata*) that inhabits streams of the eastern United States is an exception. The male releases the female when they arrive at a suitable egg-laying site. She then crawls beneath the surface to deposit eggs in submersed plants. After ovipositing, the female floats to the surface some distance downstream where she is picked up by the male.

Either way, the egg-laying period is a dangerous time for the adults. At best fitful fliers, they are easily blown about by the wind, often being cast onto the water's surface. Trapped in the film, they struggle weakly. The fore wings are outstretched like the spent wings of a mayfly, and the hind wings lie flush in the film, but point back along the abdomen in an inverted vee shape. Trout feeding on the mired insects rise in a deliberate head-and-tail fashion. Females that crawl beneath the surface are taken as they clamber about and as they float back to the surface.

Damselfly imitations must stress the size, color and silhouette of the stage being taken by the trout. Nymphs should be slender of abdomen with a thick thorax and obvious legs and gills. Adults should have a long, slender body, one pair of delta-shaped wings, one pair of outstretched wings, and should lie flat in the film when fished.

ONCE THE LIFE history of these organisms is understood, angling tactics are more easily understood. In lakes and quiet-water areas of streams, the nymph can be fished along weedbeds or deep along the bottom on a sinking-tip or full-sinking line. Move the fly slowly a few inches; let it rest; give it a short, quick strip; let it rest. Then repeat the entire sequence.

When the nymphs are migrating to shore, fish from the shore so that your fly is moving in the same direction as the naturals. Use a floating line and long leader with a three- or four-foot tippet. Apply a paste-type floatant to the butt of the leader; this will hold the fly just under the surface. Move the artificial about a foot with a hand-twist retrieve followed by two or three small twitches of the rod tip. Let the fly sit still for several seconds and repeat. Trout often pick up the nymph when it's stopped, so watch for the greased leader butt to twitch, which signals a take.

If the trout can be seen, pitch the fly in several feet ahead of him so it has a chance to sink to his level. Watch for the white flash of the fish's mouth as he takes the fly; angler-wise trout may reject the sinking nymph. I once located such a fish during a damselfly hatch on a Western lake. Each time I would show him the nymph, he would reject it. I finally cast the artificial far ahead of him and allowed it to sink and rest on the bottom. When the fish cruised near the fly, a lift of the rod jumped the nymph off the bottom. He took it confidently. In the net, a possible reason for the trout's caution became apparent. A maxillary flap was missing, probably torn away during a previous encounter with another angler.

THE ADULT DAMSELFIES can provide some spectacular dry-fly fishing, as Bob Pelzl and I found out one July. We were fishing the lakes on the Vermejo Park Ranch in northeastern New Mexico, and in the bright sun of midday we encountered a huge flight of ovipositing damsels. The bright-blue *Ischnura* were all around us, along the weeds and in the flooded timber, and gusting winds were constantly tossing them onto the water. Our fly boxes were woefully lacking, but big hairwing

## Damselfly Patterns

### Damselfly Nymph

HOOK: #8-#14, Mustad 9672, 3XL.

THREAD: Prewaxed Monocord.

TAIL: Clump of marabou (to imitate gills).

ABDOMEN: Fur, dubbed on thin.

RIB: Copper wire of appropriate color, 28 or 30 gauge.

THORAX: Fur, applied fairly heavy using a dubbing loop.

LEGS: Guard hairs; place in dubbing loop at right angles to the thread after dubbing has been applied, close loop, spin tight.

WING CASES: Clump of peacock herl wound tight over top of thorax.

The most effective colors I have found for this pattern are olive tan, olive brown, gray brown (hare's mask), purple brown.

### Damselfly Adult

HOOK: #8-#12, Mustad 94840, 1X fine.

THREAD: Prewaxed Monocord.

TAIL: None.

BODY: Deer body hair, extended.

HIND WINGS: Calftail hair, tied delta fashion.

FORE WINGS: Hackle, trimmed top and bottom.

The most effective color combinations I have found are (listed as fore wing/hind wing/body), for the male: grizzly/white/bright blue; black/black/emerald green; grizzly/white/ruby; and for the female: grizzly/white/olive tan; grizzly/white/yellow brown. GARY BORGER

spinner imitations of the Giant Michigan Mayfly (*Hexagenia limbata*) were a close enough match to the females. Bob's four-pound rainbow topped a long list of big trout we took in three hours of extraordinary dry-fly fishing. These fish had nymphs in their lower stomachs and adults in their upper stomachs and gullets.

From our observations of the naturals that afternoon, we developed the Hair Wing Damsel. It proved to be an extremely effective fly when fished motionless on the surface or twitched occasionally to excite a cautious fish. Our good friend, Ed Roe from Sante Fe, New Mexico, also found it effective when twitched along just beneath the surface.

For three weeks we enjoyed superb angling. The trout would feed all morning on the helpless, migrating nymphs; then, at midday, as the migration slowed, the fish would glut on wind-tossed adults. It was a time when even the most chivalrous angler would wisely take advantage of damsels in distress.



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