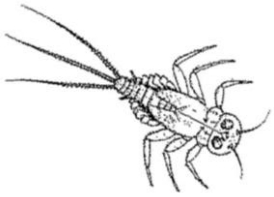
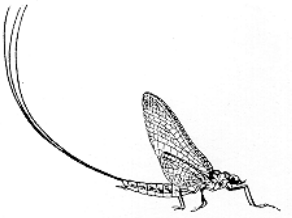
Mayflies

Mayflies, despite their name, hatch from early spring to fall, depending on the species. Almost all species of mayfly prefer clean, cold water, much like the fish that eat them, trout. Fly fishermen know that in order to catch a trout, the fly on the end of the line must match the dominant species hatching. In New Hampshire, researchers have documented 121 mayfly species. (Chandler, Donald S., et al. "The Mayflies (Ephemeroptera) of New Hampshire: Seasonality and Diversity of the Stream Fauna." *Transactions of the American Entomological Society*, vol. 132, no. 1/2, 2006, pp. 25–73.)



mayfly nymph



adult mayfly

Life for mayflies begins when a female deposits her fertilized eggs on or in the water. After sinking to the bottom and hatching, the mayfly nymph feeds on tiny plants or decaying material underwater and grows in size, shedding its exoskeleton several times to accommodate its growth. When it reaches its final size as a nymph, it crawls out of the water and molts its exoskeleton to reveal a winged, adult form. Mayflies are unique aquatic insects in that they need to molt a second time as air-breathing adults, this time to transition from sexually immature to sexually mature. As sexually mature adults, mayflies have one job: mate. This in large part explains why mayflies belong the taxonomic order, *Ephemerata,* meaning short-lived. Their mouth parts are so weak that the mayflies cannot feed; their legs are so weak that they might not be able to support themselves on a solid surface. But short-lived does not mean that these creatures are rare; there have been instances when hatching mayflies have been so abundant that they were detected on Doppler radar. Motorists driving through these hatches might find their car fronts covered in smashed mayflies. In nature, a good hatch is an opportunity for mayflies to mate and for trout and song birds to catch a good meal.