

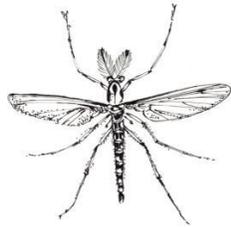
Order Plecoptera, Stoneflies



Four genera of stonefly have been identified in Silver Creek, including the small (10-15mm) *Isogenus* sp., and larger (45mm) salmonfly. Mainly found on the lower sections of the spring creek, stoneflies prefer swifter current and gravel bottoms as favorable habitat.

Order Diptera, Midges, Mosquitoes, Aquatic Gnats and Crane Flies

One of the largest, biologically diverse, and highly evolved of insect



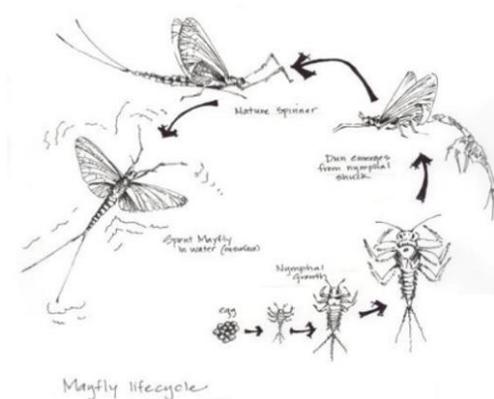
Midge

orders, the Diptera (two winged) are known mostly to us for being the annoying biting flies. On Silver Creek, the family Chironomidae (the midges) sometimes are the only emerging insects on cooler spring and fall days.

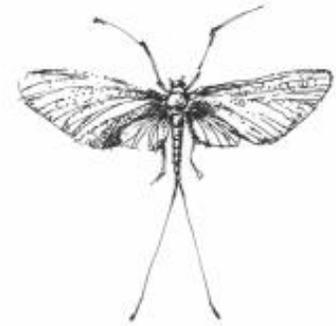
Quite possibly the most adaptable of all aquatic insects, midge larvae are very important to the food supply of fish in all stages of their life cycle.

More Biodiversity Remains

Though not the most dominant orders of insects and non-insect invertebrates, Silver Creek is also home to many ants, beetles, leeches, grasshoppers, scuds and snails. These too play an important role in the spring creek ecosystem here that with your help can be preserved for generations to come.



Silver Creek Preserve Aquatic Insect Hatch Guide



*"Insects have a life of their own,
and a beauty to match."
-Anthony T. Hinckley*



The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends.

Silver Creek's globally unique aquatic ecosystem features one of the highest densities of stream insects in North America, which supports the world-class fishery.

Order Ephemeroptera, Mayflies

Mayflies are among the most abundant and important members of the bottom-dwelling freshwater community of Silver Creek. Most mayfly species produce one to two generations annually. Larval stages between molts may last a few weeks or up to two years.

When larvae reach maturity, they transform into the terrestrial dun stage, commonly referred to as the hatch. This change is usually triggered by temperature, as well as the time of day and year. Subimagos require a short period of time before flight to allow the 'upwings' to free from the larval wing cases. This may last for one or two days.

Adults, otherwise known as spinners, generally live no longer than a month. Females lay eggs in three ways: directly on the water by either intermittently touching the surface or by landing, while some may submerge and oviposit on the underwater substrate.

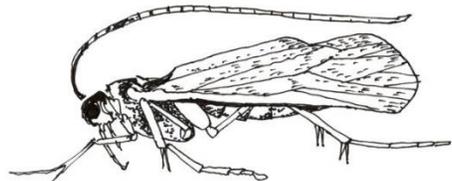


Silver Creek fly fishermen concentrate primarily on five to seven genera of mayflies:

- Pale Morning Dun (*Ephemerella*)
- Speckle Dun (*Callibaetis*)
- Blue-Winged Olives (*Baetis*)
- Tricos (*Tricorythodes*)
- Mahogany Dun (*Paraleptophlebia*)
- Brown Drake (*Ephemerella*)
- Green Drake (*Drunella*)
- Gray Drake (*Siphonurus*)

Order Trichoptera, Caddisflies

Caddisflies, the second most abundant insects in Silver Creek, have been identified here in more than four families and eighteen different genera. Closely related to the Lepidoptera (moths and butterflies), Caddis are mostly known for the intricate cases they construct during their larval and pupae stages, and also the 'tentwings' that are held roof like over their body as adults. Caddisfly life cycles typically include one generation per year.



Emerging Caddis generally fly quickly from the water, and for this reason they are most vulnerable to trout in subsurface as pupae.

The warmest months of summer, July-August, tend to allow for favorable hatching conditions. You will find the best hatches late in the afternoon and crepuscular hours, where swarming mating and egg laying occur. Females can be identified skimming the water's surface or going up and down the creek, briefly touching the surface with their abdomen to lay eggs.

Order Odonata, Damselflies

Dragonfly and Damselfly adults emerge after the last larval molting stage when clinging onto some object in a vertical position. Adults may live for a few weeks to a few months and are found here in great numbers from June to August. Mating behavior is highly intricate, and most damselflies lay eggs by puncturing floating vegetation or debris. Mating tends to occur during the hotter mid-afternoon hours, when other hatches seem quite sluggish.

