INSECTS OF THE SAUSAL CREEK WATERSHED
Friends of Sausal Creek Bioassessment Team and Holy Names University
Drawings of Sausal Creek insects by Isamar Quiroz
These five orders of immature insects are residents of Sausal Creek. To find them, pick a section of the creek with shaded, running water, find a loose rock and turn it over. Be prepared to look fast! Some of these insects are prey for other organisms, and they move fast to stay alive. Tolerance values measure resistance to various pollutants on a scale of 1-10. High values (7-10) are tolerant of pollution, low values are not.

**Small Minnow Mayfly** (nymph) Order Ephemeroptera, Family Baetidae
Small (3-12 mm), brown, torpedo-shaped, fast crawler, usually with prominent wingpads, abdominal gills, and three long cerci (tails).
This mayfly nymph is ubiquitous in all sections of Sausal Creek, usually under rocks in glide and riffle areas. Usually multiple generations per year, there can be representatives of several generations in a sample.
- Functional feeding group: collector/gatherer
- Tolerance value: 4 (moderately intolerant)

**Little Brown Stonefly** (nymph) Order Plecoptera, Family Nemouridae
Small (4-9 mm), with three distinct body segments: head, thorax and abdomen.
Flip over to see the gills jutting out between head and thorax.
Prefers cool, clean water, found in sections of the creek under heavy canopy cover.
It crawls on leaves or woody debris, or under rocks.
Functional feeding group: shredder (shreds fallen tree leaves, allowing the leaves to be broken down by bacteria and fungi). Tolerance value: 2 (intolerant)

**Pond Damselfly** (nymph or naiaid)
Order Odonata, Suborder Zygoptera, Family Coenagrionidae
Large (13-25 mm), fast, big eyes, three leaf-like gills at end of abdomen.
Flip specimen over to observe plate-like labium.
This very active predator is found in quiet waters or stream edges, sometimes in riffles. Adult is a predator as well.
- Functional feeding group: predator
- Tolerance value: 9 (very tolerant)

**True Fly** (larva)
Order Diptera, many families
Great diversity in this group, but if you find something that looks like a worm but has a head, or stumpy legs, it is a dipteran larva.
Size from 2mm to 4 inches, depending on family. Found mostly in slower-moving or pooled regions of the creek.
- Functional feeding group and tolerance value dependent on family.