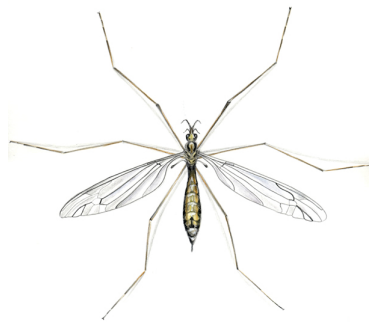


## **Creature Feature: Spring 2008**

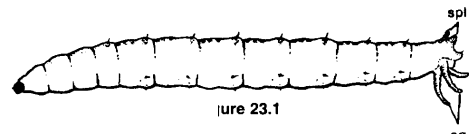
By W. Scott Douglas

# Craneflies



Craneflies are a group of insects that we have all seen, but few know what to call them. When I was a boy, we called them - “giant mosquitos” and would scare our younger siblings with made up tales of their bloodthirsty exploits. Fortunately, craneflies are not blood predators, in fact the adults have no mouthparts at all and only live long enough to mate, lay eggs and die. Craneflies are true flies, or Diptera, related to all other flying insects with only one pair of wings like houseflies, mosquitos or horseflies. Craneflies are members of the family Tipulidae. You may be surprised to know that this group of insects is one of the most diverse of the flies, with almost 1500 species described in North America alone, and divided into 64 different genera. They have exploited most of the habitats on Earth, with some species even adapted to desert conditions.

As with all flies, the larva is a legless maggot, and while many are revolted by their appearance, their structure is quite varied and fascinating. Pictures of the hind end of the larvae often look like a series of Rorschach blots. I leave it to you to decide what you see! These structures (see figure below) are actually part of the breathing apparatus for the insect, with the “eyes” being spiracles or breathing holes. The lobes may be gills, no one really knows for sure. In Cooks Creek, crane fly larvae range in size from a few millimeters to a few inches. At first it may appear to be lacking a head, but the head of a crane fly larva is actually complex and hardened, it is just retracted into the thorax when not feeding. The larva feeds on leaf litter and other detritus, and is an important food source for fish. The adults are fed upon by a whole host of birds, fish, reptiles, amphibians and small mammals. The larva goes through 4 instars before molting into a pupa over the course of a few days to a few years.



Craneflies live in almost all aquatic environments from slow silt-laden rivers to rushing mountain streams. Some are quite intolerant of pollution; most are somewhat tolerant, but none are able to live in highly polluted water. You will probably find craneflies in most kick net samples, but you will find the most spectacular ones by looking through the leaves

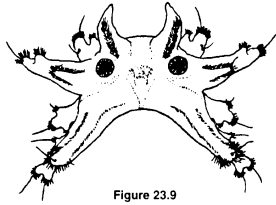


Figure 23.9

from the bottom of a quiet pool. Place the leaves in a dishpan with some water and agitate them gently to dislodge the residents. The largest crane fly larvae are brown, but their skin is translucent, making it possible to see their insides when they move. Gross!