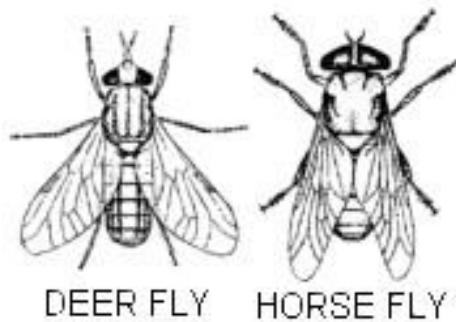


Creature Feature: Spring 2017

By W. Scott Douglas

Horseflies and Deerflies

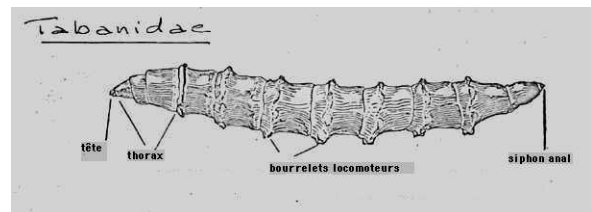
If you spend any time at all in the great outdoors, then you have experienced the seasonal annoyance of deerflies dive bombing around your head. As if the buzzing is not enough to drive you crazy, you know that when the buzzing stops it means they probably found a place to land - but you won't know where until the pain starts. Speaking of painful insect



bites, horseflies may be a rare human pest, but since they tend to find you when swimming or sunbathing, there is a lot more skin area exposed. Since horseflies are two to four times bigger than deerflies, it's not surprising that their bites are excruciating. Even livestock have been known to injure themselves trying to get away from horseflies. Why are their bites so painful? Unlike mosquitos, that have a serrated tube that they stick into your skin, the mouthparts of a horsefly or deerfly are tiny sawblades that cut a messy wound that bleeds profusely. The thirsty ladies (only females bite)

then suck up the blood using a sponge like appendage. In case you are wondering, the males are actually important pollinators as they only feed on nectar and pollen.

There are over 300 species of horseflies and deerflies in the family Tabanidae. Most aquatic horseflies are in the genus *Tabanus* or *Hybomitra*. Deerflies are actually a kind of horsefly, of the genus *Chrysops*. Other than size, the best way to tell them apart is that horseflies have clear or cloudy wings, but deerfly wings are usually banded. All deerflies and some horseflies have aquatic larvae. The larvae are typically carnivorous, some even large enough to eat fish fry! The larvae in turn are preyed upon by fish and other large invertebrates like stoneflies, dobsonflies and dragonfly nymphs. The larvae are not much to look at; they are typically less than an inch in length and off white or brown in color with no legs. The ends are tapered with a tiny retracted head on one end and a respiratory tube on the other. This tube can be used to get oxygen when living in puddles or at the edges of a marsh where dissolved oxygen levels are low.



The insects live as larvae for a few months in the case of deerflies, to a few years in the case of horseflies. The adults will mate in a swarm, meaning lots of males and females together in a cloud. The females select a leaf or blade of grass that leans out over wet ground or open water to lay their eggs (anywhere from a couple dozen to a thousand).

While it is unusual to find a large abundance of larvae in any one part of a stream, they are tolerant of a wide range of conditions and can be found in many microhabitats from leaf packs to marshy detritus along the stream bank. They do not seem to be particularly picky when it comes to water quality, so they are not used as indicators one way or another. Often they are captured by nets sweeping the underside of cut banks and logs or among shoreline vegetation. The adults, of course, have probably already found you if you are out collecting. It is not easy to discourage them from biting either; insecticidal sprays do little to dissuade them from buzzing about until they find a spot you missed. Best to get out of the sun and sit in the shade. All Tabanids are sight feeders, attracted to large dark objects. Livestock get relief only when they retreat to a barn or stable. Interestingly, horseflies like a stationary target, deerflies only go for moving prey.