## Black Flies: Proof That No Good Deed Goes Unpunished



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MT. VERNON, ILL. Ccording to the Illinois Environmental Protection Agency, after implementation of the clean water act, water quality in our streams, lakes and rivers has steadily improved. Illinois is not alone here; water quality is better throughout the

United States as well. I am glad that our waters have been improved, and I'm sure that most of the creatures in the wild are better for it as well. However, there are always unintended consequences to everything we do, no matter how noble the intent. Black flies are very sensitive to water pollution and because the stream and river water quality is so much better, the black flies are doing much better as well.

Black flies, also known as buffalo gnats, are those pesky little flies that sometimes try to eat us and our animals alive. Some species of black fly females are fierce biters. Their mouthparts are similar to those of a horse fly (bladelike and piercing). Other species annoy us by flying around our head and especially our nose, ears and eyes.

Most black fly species are about 1/8 inch long, have broad wings with the leading edge sturdily veined, and a strong humpbacked appearance to their body. A female deposits as many as 500 eggs in a stream. Eggs hatch in five days in 70 degree water. Eggs laid in cold water won't hatch until the water warms, sometimes waiting until the following spring. Young larvae attach themselves to submerged objects and molt six times before they pupate into adults. There may be four generations per year.

During the height of the black fly season, which is April to June, the flies can become such a nuisance that some people will refrain from going to the areas laden with the flies (usually nearby waterways). Children are especially susceptible and may be severely bitten, while adults in the same area are scarcely aware of the flies.

Black flies bite during the day in shaded to partially-shaded areas. Normally, they don't bite indoors or after dark. A female will continue to bite for up to three weeks before dying. Dark blue cloth attracts more black flies than white cloth does.

A variety of diseases including filarial worms and onchocerciasis, which can cause blindness, can be transmitted, as well as protozoan parasites. Black flies may also carry encephalitis.

To add insult to injury, there is little that you can do to control adult black flies. Control efforts are best directed toward reducing the number of black fly breeding areas. However, this can be difficult or even impossible to do. Most black flies need clean, flowing water to successfully reproduce. Removal of vegetation and other objects in streams can reduce larval numbers. Other efforts to slow water speed can further provide relief since black fly larvae will die in 10 to 24 hours in calm, non-running water. Hats with fine mesh netting that covers the face and shoulders can keep black flies at bay.

Repellents that contain DEET, citronella oil or similar compounds can provide varying levels of relief depending on the fly species, time of day, humidity, temperature, etc. But, there are some periods where the flies will bite regardless of the repellent used.

If your reaction to a black fly bite is mild, it can be treated with soothing lotions, antihistamines and corticosteroids to relieve pain and itching. However, some people can have a severe reaction and should be seen by a physician.  $\Delta$ 

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