

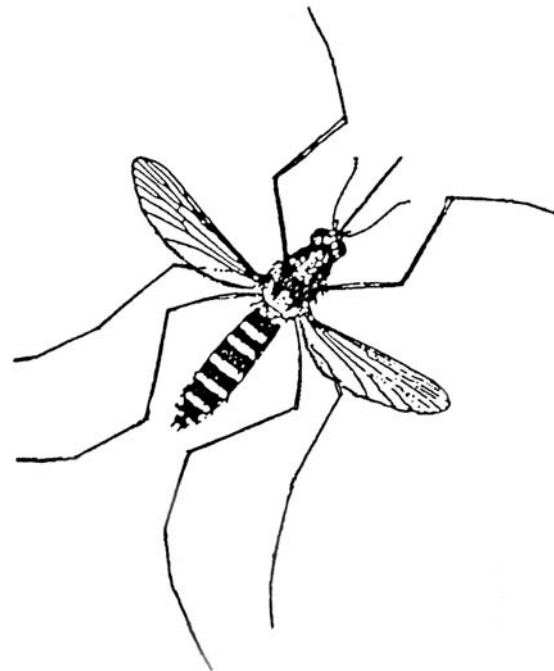
**D.G. Regan and Associates Ltd.** is an environmental services and consulting firm. The company's principals are Registered

Professional Biologists. We

provide services which meet the growing needs of both industry and government.

For more information about mosquitos, please contact:

- DG Regan and Associates Ltd.  
604-931-4565: [www.dgregan.com](http://www.dgregan.com)
- Health Canada: [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca) or [www.westnilevirus.gc.ca](http://www.westnilevirus.gc.ca)  
West Nile Virus info line: 1-800-816-7292
- The Province of BC West Nile Virus response plans: BC Centre for Disease Control  
604-660-0584 or [www.bccdc.org](http://www.bccdc.org)
- To report dead birds: Fill out the form at [www.cw.bc.ca/cdc/WestNile/wnv\\_formIE.asp](http://www.cw.bc.ca/cdc/WestNile/wnv_formIE.asp)



## Mosquito control programs are necessary because mosquito bites:

### cause

- annoyance
- allergic reactions
- infections

### can transmit disease

- encephalitis
- dog heartworm

### reduce

- tourism revenues
- outdoor enjoyment and recreation
- weight gain in livestock
- milk production in dairy cattle
- livestock reproduction and survival

## Mosquito Facts



Mosquitos need standing water to develop.



Mosquito habitats include ponds, sloughs, river flood plains, and tidal marshes.



Man-made habitats include ditches, tires, bird baths, unused swimming pools, boats, eavestroughs.



Only females bite because a blood meal is required for egg production.



Some female mosquitos take multiple blood meals and produce several generations during a single season.



Only one mating is required to fertilize a lifetime of egg production.



Mosquitos can live from one to two months and others over winter to live up to a year or more.



Mosquitos can travel up to 20 miles.



In the Canadian Arctic, mosquitos can bite at the rate of more than 1000 per minute.

## Myths About Mosquito Control

(The following control mechanisms are neither endorsed nor rejected by the District of Campbell River.)

### Repellents

#### Sound and Electric

- these devices have no repellency effects
- units are marketed with no test results

#### Citronella (plants and candles)

- no data support claims
- pleasant odor does not guarantee results

#### Skin Moisturizing Oil

- field tests do not support claims
- mosquitos are 30 times more sensitive to DEET than to skin moisturizers

### Control

#### Bug Zappers

- mosquitos comprise less than 5% of the catch
- kill mostly beneficial insects
- actually attract mosquitos

#### Birds

- ornithologists state Purple Martins and other swallow-like birds do not prefer mosquitos
- mosquitos make up less than 3% of their diet

#### Bats

- bat diets consist mainly of beetles, wasps, ants, flies, stoneflies, mayflies, moths and grasshoppers
- mosquitos make up less than 1% of their diet

## Homeowner Efforts

Since mosquitos need water to complete their life cycle, the source of a mosquito problem can be just about anywhere water can collect. You can help reduce mosquito populations around the home by eliminating these sites and by:



removing discarded containers from around your property



replacing water in bird baths and livestock troughs regularly



cleaning clogged eavestroughs, drain pipes and ditches



storing boats, canoes and other objects so that they do not collect rain water

Mosquitos are attracted to humans because of the heat, the carbon dioxide we exhale and fragrances in items such as soaps, perfumes, lotions, hair treatments and other personal care products. To reduce the annoyance of mosquitos:



install and maintain tight fitting window and door screens to help keep mosquitos out of the home



wear light colored, loose-fitting clothing



heat and moisture from barbeques attracts mosquitos, after cooking, move away to enjoy your meal

## Effective Mosquito Control

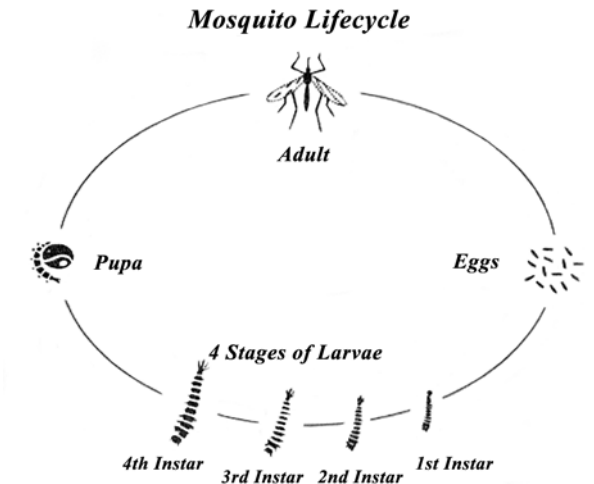
The essential components of a successful mosquito control program include;

- public information which provides the public with updates on program activities and aids homeowners in reducing mosquito annoyance around the home
- regulatory agency liaison and permitting to ensure the safest methods are employed
- aerial/ground-based surveying and monitoring of both adult and larval mosquito populations and distributions
- selection of the most effective and safest mosquito control options including;
  - biological control
  - physical control
  - chemical control
- program evaluation

## Break the Cycle!

Your pro-active control program concentrates efforts on the physical and biological control of larvae before they become a nuisance.

The most permanent prevention of adult mosquito annoyance is through the physical reduction of the problem, at the source. Where draining and filling of wetlands and other mosquito habitats is impractical and undesirable, overall reduction of adult mosquitos is best achieved through larval control.



The Solution

To protect residents the District has implemented a program of public education, biological mosquito surveys, site mapping and species identification.

Should the presence of West Nile Virus be confirmed in the region, the District will continue to work with the BC Centre for Disease Control ( BCCDC) and Vancouver Island Health Authority (VIHA) to minimize the risk to the community.