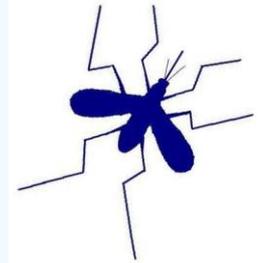


OtterTail Environmental^{INC}

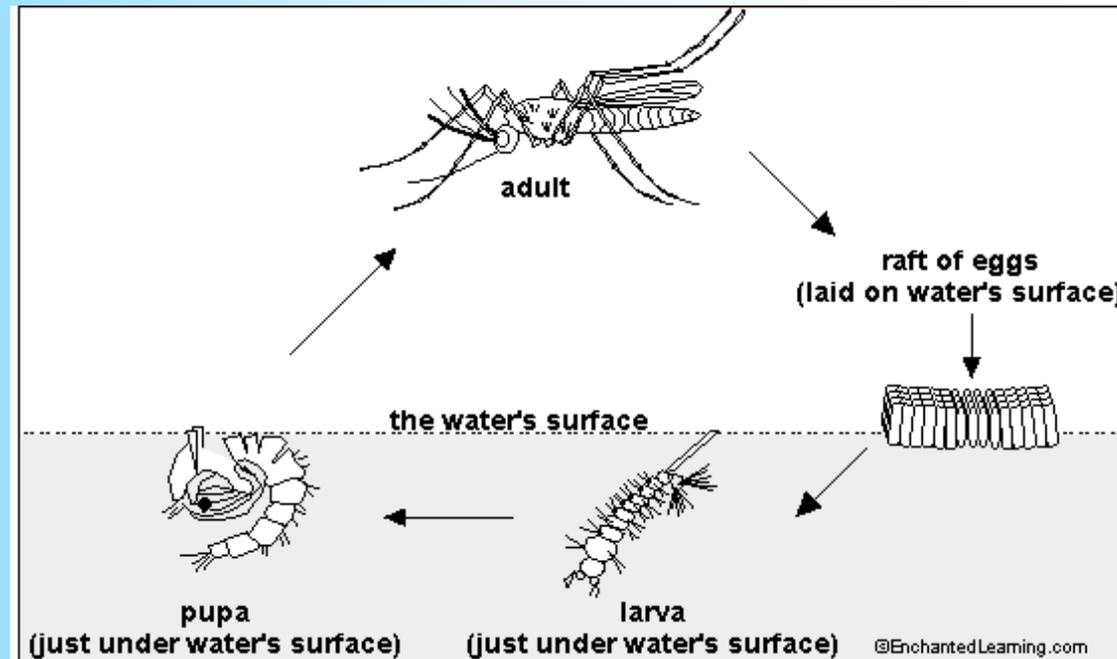


Mosquito Biology – Life Cycle



Mosquitoes go through complete metamorphosis:

- Egg (Aquatic Stage)
- Larva (Aquatic Stage)
- Pupa (Aquatic Stage)
- Adult



Time spent in each stage depends on both temperatures and the species characteristics.

LARVAL MOSQUITO SURVEILLANCE AND CONTROL

- Most efficient, effective, and environmentally sensitive method of mosquito control is in the larval stage
- Vast majority of our efforts are in our larval program (over 90%)
- Our technicians are checking and treating the larval sites during the day on a daily basis
- This is the bulk of the program, but people often don't realize it because when they think of mosquito control, they think of flashing trucks at night

Checking for Larva





Control Applications

- Once larva are found, we perform pesticide applications at habitat site
- Usually a granular bacteria that is specific to mosquito larvae
- Other products are sometimes used, including surface oils and IGR's, depending on the life cycle stage of the mosquitoes and specific habitat site

Adult Mosquito Surveillance

- Adult mosquito populations are monitored by collecting samples in mosquito traps placed in harborage areas
- We have 4 permanent/historic trap locations in Fort Morgan (plus 2 additional floater/temporary traps when needed)
- Adult mosquito population surveillance is critical to disease surveillance; vector mosquitoes collected from the mosquito traps can be tested for a variety of mosquito-borne diseases
- Adult population surveillance also provides population statistics such as species and densities
- Helps determine if adult control (spraying) is needed

CDC-Style CO₂ Light Traps



- Cooler w/dry-ice
- Light source
- Fan unit
- Net

Adult Control (Adulticiding)

- Even with a quality larval control program, adult control can still be necessary
- Sources from outside of the project area allow “fly-in” mosquitoes, inaccessible habitat areas, homeowner sources, etc.
- Therefore adulticiding should be seen as a supplement to larviciding - to be used when mosquitoes become too numerous, or when high levels of virus activity in mosquitoes threaten populated areas with disease.

Adult Control (Adulticiding)

- Our adult mosquito control program uses applications of fine droplets of pesticides as an *ultra low volume* (ULV) treatment from specialized equipment (sometimes the “fog” is not easily seen because it is so fine)
- Can only perform if the weather conditions allow it (cannot perform in high winds, rainstorms, low temperatures, etc.)
- OtterTail provides No-Spray and Notification Lists for residents that do not want their properties sprayed or request that they be notified when spraying in their area (24hr notify)

Adult Control (Adulticiding)

Adult control decisions will be based on a combination of factors including:

- Weekly Trap Counts (the primary trigger)
- Citizen Complaints (OtterTail will set extra “floater” traps to verify mosquito populations)
- West Nile Virus Activity



Mosquito Control Hotline

(303) 273-2878

Toll Free (888) 774-2161

Residents can call OtterTail's automated hotline to:

- Report areas of standing water
- Report high mosquito biting activity
- Request to be added to No-Spray/Notification Lists
- Obtain other mosquito-related information

OtterTail Website

www.OtterTail.us

- Mosquito Biology
- Mosquito Control FAQ
- Pesticide FAQ
- Homeowner Tips
- Request to be added to No-Spray/Notification Lists
- Spray Schedules
- And can find much more mosquito-related info!

Contact Information:



10200 W. 44th Ave, Ste 210

Wheat Ridge, Colorado 80033

(303) 858 – 8350

www.ottertail.us