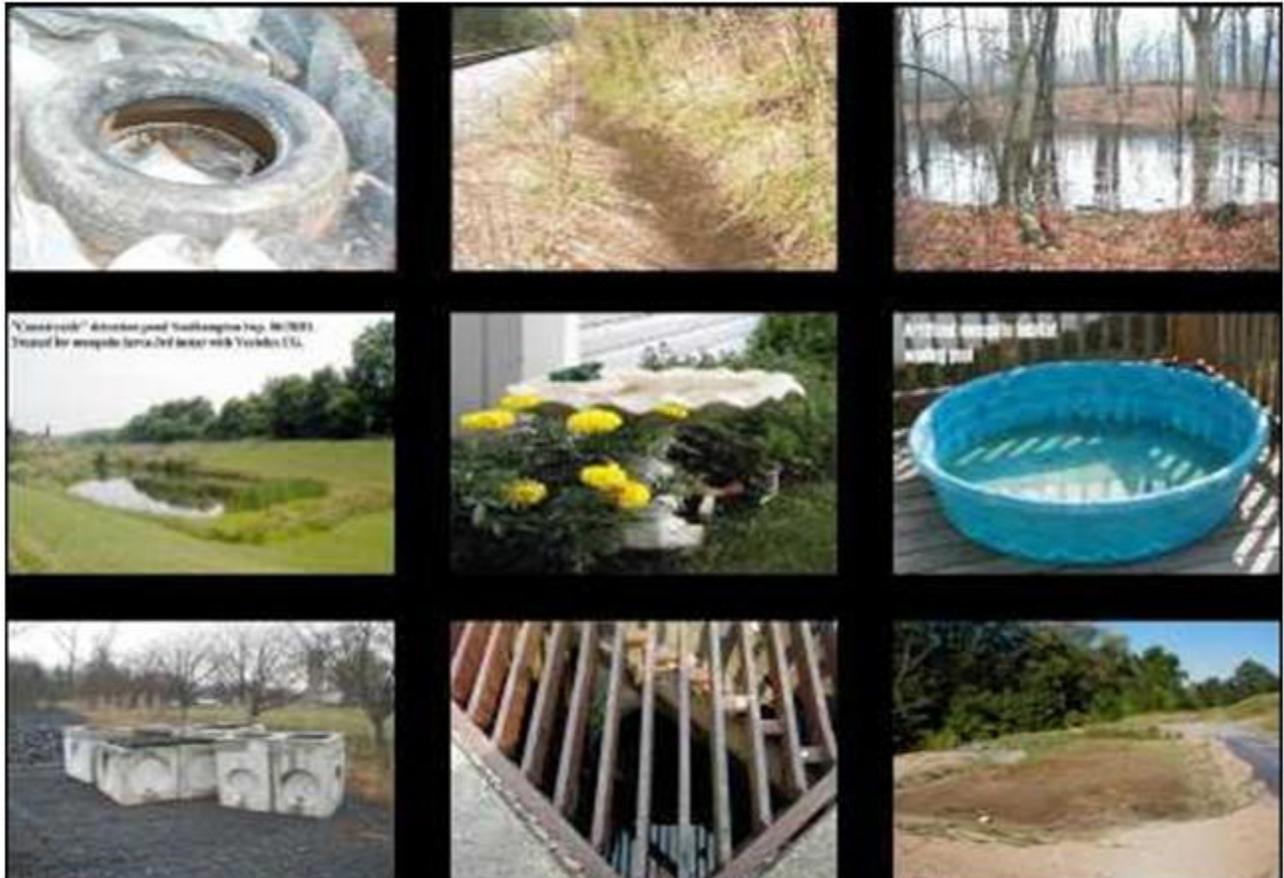


Mosquitoes



Common Mosquito Breeding Areas

Adult Mosquito Behavioral Characteristics:

There are some behavioral characteristics common to most adult mosquito species. Males emerge from the pupal stage about 24 hrs before the females. Mating occurs within 24-48 hrs of emergence. A majority of females in any population are fertile, so mating occurs frequently during this time. Both males and females consume nectar and other plant juices, however, only the females take a blood meal in order to utilize the protein from blood to produce eggs. Generally, mosquitoes are inactive during the day, resting in cool, humid locations to minimize moisture loss. Feeding and mating usually occur at dusk or through the night until after dawn.

Information you should know about the illnesses mosquitoes cause:

Yellow fever and malaria were the most significant mosquito-vectored human diseases in the first two centuries of U.S. history. Yellow fever is a viral infection usually consisting of symptoms such as headaches, muscle and joint aches, fever, flushing, loss of appetite, and vomiting. Malaria is a parasitic disease that involves symptoms such as high fevers, shaking,

chills, flu, and anemia. However most of these diseases are well under control in today's society. The most prevalent and dangerous diseases from mosquitoes today are the vectored encephalitis. Encephalitis is a general term that means an inflammation of the brain. Encephalitis infections in humans may have no lasting effects, or they may cause permanent damage to the central nervous system, or even death. The state of Indiana has five main mosquito-vectored encephalitides of concern: LaCrosse encephalitis, St. Louis encephalitis, Western equine encephalitis, Eastern equine encephalitis, and West Nile encephalitis.

LaCrosse Encephalitis: This is a viral disease of squirrels, chipmunks, field mice, and rabbits. Humans, horses, and other animals are dead-end hosts (the disease cannot be transmitted from the infected host to another animal). Mosquitoes carrying the disease infect small mammals. Uninfected mosquitoes become infected with the disease when they feed on mammals that have it. Infected mosquitoes then pass the virus to succeeding generations of mosquitoes through their eggs. People are typically prone to this disease in wooded rural and suburban areas.

St. Louis Encephalitis: This is a viral disease of birds. Humans and other animals are dead-end hosts. Many wild and domestic bird species may become infected when bitten by infected female mosquitoes. These mosquitoes remain close to their breeding site, which is typically in shallow, standing water, and usually feed in the dark. People may encounter this mosquito indoors and out.

Western Equine Encephalitis: Birds are the reservoir host and this virus is transmitted primarily to small mammals. Humans and horses are dead-end hosts. These mosquitoes can be found in most fresh water sources; however, they are uncommon in polluted water. Adults rest during the day in animal burrows, tree holes, and man-made shelters. Feeding occurs at night and their flight range is between 10-15 miles, the furthest of any mosquito.

Eastern Equine Encephalitis: Birds are again the reservoir hosts for this virus. Humans and horses are dead-end hosts. Bird hosts include many types of songbirds such as cardinals, blue jays, catbirds, wood thrushes, and robins. The virus can survive the winter in birds. These mosquitoes breed in heavily shaded, permanent, fresh water swamps and marshes containing cool, acidic water.

West Nile Encephalitis: Perhaps the most heard of and common type of virus in more recent times is West Nile. Birds are most commonly associated with the virus and most are members of the Corvidae family (crows and blue jays). Adult female mosquitoes feed on infected birds and transmit the virus to other birds. Infected birds may become ill and recover or may exhibit no noticeable symptoms. Most people whom become infected with the virus either have no symptoms or experience mild illness such as fever, headache, and body aches before fully recovering. West Nile virus can cause serious concern for anyone, especially the elderly because they are at higher risk of death if infected.

Treatment: If you feel that you have come into contact with any of these viruses, it is important to contact your doctor. The earlier the diagnosis of the virus, the easier it comes to treating

it. People, whom have been around swampy areas, contact with forests, camping, or frequency outside during the summer should take the necessary precautions when handling the outdoors. Blood tests can be done to see if an individual is infected.

Information you should know regarding mosquito control: Mosquitoes are not biased when it comes to breeding. They can breed in all types of climates and weather patterns. Wet, dry, warm, or cool weather patterns are prevalent mosquito mating grounds. These tips can help reduce the chances of having your home turn into a mosquito utopia.

- 1) Dispose old tires, buckets, aluminum cans, plastic sheeting or other refuse than can hold water. Mosquitoes like moist, humid conditions and any drop of water can be made into a sufficient breeding ground for them.
- 2) Keep track of your gutters and make any necessary repair to your air conditioner. Clean gutters often, as many mosquitoes can breed in those areas and damaged air conditioners can lead mosquitoes to invade your home.
- 3) If you have swimming pools be sure to have it chlorinated often. A chlorinated pool kills mosquitoes and decreases the chances of having your pool turn into a giant swamp area.
- 4) Eliminate any standing water in backyards, ditches, or other soil depressions. Cistern screens and septic tanks should be covered tightly.
- 5) Carefully water and irrigate your lawn. Too much watering can lead to standing water and it can stay on your lawn for several days.

Adult mosquito control: In order to reduce biting from mosquitoes, insecticides can be applied on the lower limbs of trees, this is especially important if your home has many trees around it or you live in a woody area. Mosquitoes like to rest in protected areas during the day. Yards with lots of trees, shrubs, and dense vegetation or properties adjoining such areas, can have a great deal of problems for these homeowners. Keeping up with your lawn and removing weeds and overgrowth is good for mosquito management.

Information on your personal protection of mosquitoes: The most important thing to understand about mosquitoes is that they are most prevalent at night. Staying indoors at dusk during evening hours will lessen the chance of you being bitten. If you are to go out at night, protecting yourself is a must. Wearing long-sleeved shirts and pants will lessen your chances of being bitten, but any other areas of exposed skin may be bitten. Wearing repellent containing diethyl toluamide or DEET can lessen your chances of getting bitten. The more DEET in your repellent, the more effective the protection is. Low percentages are good for children. Non-DEET items such as lotion or citronella oil may provide little relief of mosquitoes, but your chances of getting bitten is very likely, as mosquitoes are not affected by this as much as a repellent with a high concentration of DEET.

Additional Information Regarding Mosquitoes:

Mosquito awareness and community control can be found: [✉ http://www.ces.purdue.edu/new](http://www.ces.purdue.edu/new)

Indiana State Department of Health monitors encephalitis-positive animals and provides useful information on protection procedures: [✉ http://www.in.gov/isdh/23592.htm](http://www.in.gov/isdh/23592.htm)

American Mosquito Control Association: [✉ http://www.mosquito.org/](http://www.mosquito.org/)

Insect control in your yard and/or home: [✉ http://insects.about.com/od/insectpests/a/mosquitocontrol.htm](http://insects.about.com/od/insectpests/a/mosquitocontrol.htm)

Porter County Health Administration: 219-465-3525 (Opt. 5 Environmental)