

Culex pipiens, house mosquito

cellular organisms - Eukaryota - Fungi/Metazoa group - Metazoa - Eumetazoa - Bilateria - Coelomata - Protostomia - Panarthropoda - Arthropoda - Mandibulata - Pancrustacea - Hexapoda - Insecta - Dicondylia - Pterygota - Neoptera - Endopterygota - Diptera - Nematocera - Culicimorpha - Culicoidea - Culicidae - Culicinae - Culicini - - Culex - Culex pipiens complex - Culex pipiens

Brief facts

- *Culex* mosquitos are the most widely distributed mosquito in the world. The most important of the *Culex* vectors are members of the *Culex pipiens* complex, a very closely related group of species (or incipient species - the taxonomy remains unclear) that originated in Africa but has spread by human activity to tropical and temperate climate zones on all continents but Antarctica.
- *Culex pipiens* mosquitos are important vectors of human pathogens in the United States and world-wide. They carry a number of devastating diseases such as St. Louis encephalitis (SLE), West Nile encephalitis, Eastern equine encephalitis, Venezuelan equine encephalitis, Japanese encephalitis, Ross River encephalitis, Murray Valley encephalitis, Rift valley fever, and lymphatic filariases. *Culex* mosquitos are competent to transmit **heartworms**. **Detailed information about ubiquitous parasites - heartworms, *Dirofilaria immitis* at MetaPathogen.**
- *Culex pipiens* is normally considered to be a

bird feeder but some urban strains have a predilection for mammalian hosts and feed readily on humans.

- The genome sequence of a member of the *Cx. pipiens* complex will greatly simplify the identification of mosquito genes required for pathogen transmission, potentially enabling the development of new strategies for combating and controlling these diseases.

Life cycle of *Culex pipiens*

Life Cycle Stages

Life cycle of *Culex pipiens* represents a variation of the the **multivoltine** life cycle (according to a classification system for Northeastern mosquito life cycles): non-desiccation resistant eggs laid directly on water; larvae develop in polluted water habitats; multiple generations each year; overwinters as a mated female.

- **egg**

Culex mosquitoes lay their eggs usually at night on the surface of fresh or stagnant water; usually lay their eggs at night; a mosquito may lay a raft of eggs every third night during its life span; *Culex* mosquitoes lay their eggs one at a time, sticking them together to form a raft of from 200-300 eggs; a raft of eggs looks like a speck of soot floating on the water and is about 1/4 inch long and 1/8 inch wide

- **embryo**

- **hatching larval MeSH**

commonly called **wigglers**; all larval stages are aquatic; collectively they take from 7 to 14 days to complete

- 1st instar larva
- 1st molting
- 2nd instar larva
- 2nd molting
- 3rd instar larva
- 3rd molting
- 4th instar larva
- 4th molting

- pupa **MeSH**

commonly called **tumblers**; pupal stage takes 2 days to several weeks to complete

- newly eclosed

- adult

Culex usually live only a few weeks during the warm summer months; those females which emerge in late summer search for sheltered areas where they hibernate (diapause) until spring; warm weather brings them out in search of water on which to lay their eggs



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nemose@live.com

