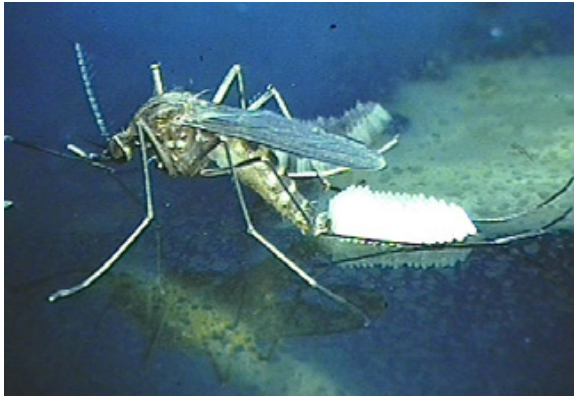


Help Reduce Mosquito Populations



Mosquito laying eggs.



Jars of rain water containing mosquito larvae

Centers for Disease Control and Prevention

Soni Cochran
UNL Extension Associate

Mosquitoes are one of the most important insect pests affecting the health of humans and domestic animals worldwide. They can transmit a number of disease-causing organisms to humans and animals. The diseases include encephalitis (this includes the West Nile virus), dengue fever, filariasis, yellow fever and malaria. Encephalitis and dengue are potential threats in the United States. Mosquitoes also transmit heartworm in dogs and encephalitis in horses.

All mosquitoes need water to complete their life cycle so a pest problem can develop just about anywhere water collects. Construction sites, drainage ditches, waste lagoons and even tire ruts by the side of a road can create breeding sites for mosquitoes. Around homes, birdbaths, boats, old tires, soda cans, plant pots, knot holes in trees all collect water and become potential mosquito breeding sites.

You can help reduce mosquito populations by eliminating or properly maintaining potential breeding sites:

- Check flower pots and other containers for excess water.
- Flush out the water in bird-baths and fountains every few days.
- Store boats, canoes and other

- objects in a way they don't collect rainwater.
- Remove water that collects in depressions like tarps cover equipment or hay. Rinse off water collecting on backyard trampolines or other play items.
- Keep rain gutters free of leaves and debris.
- Keep swimming pools and backyard ponds properly maintained.
- Watch for drainage problems in yards and playing fields.
- Repair leaky pipes and outside faucets.
- Empty water containers for pets and check livestock watering troughs and tanks.
- Correct or report drainage problems in ditches along public or private.
- Farmers should check irrigation re-use pits and areas where drainage from irrigation or heavy rains drain to roadside ditches.
- Homeowners should make sure screens covering windows and screen doors are in good condition.

When mosquitoes are present, limit your outdoor activities and protect yourself. Older people or people with compromised immune systems are most likely to be at risk from severe complications from mosquito-borne illnesses like West Nile Virus.

If going outside, wear light-colored clothing. It is less attractive to mosquitoes and

should be worn to cover most of the skin. Repellents should be used; however, some people, especially small children, may be sensitive to repellents. The Centers for Disease Control (CDC) recommends two "conventional" repellents (DEET; picaridin) and two "biopesticide" repellents (oil of lemon eucalyptus; IR3535). For more information about active ingredients in these repellents go to <http://www.cdc.gov/ncidod/dvbid/westnile/repellentupdates.htm>. Follow label directions before using any repellent.

Insecticides can be used as residual sprays for mosquitoes resting in shrubs, flowers and trees. There are products suitable for use in backyard ponds or other aquatic habitats. These include *Bacillus thuringiensis* (Bt). Bt is not harmful to fish or other wildlife and is available for purchase in local lawn and garden centers, farm supply stores and more.

Protect your dog by putting him on a preventative heartworm medicine. For horses, contact your veterinarian for vaccines for the encephalitis stains. There are no vaccines available for humans.

FOR MORE INFORMATION

UNL Extension has a additional resources about mosquitoes and their control online at <http://lancaster.unl.edu/pest>

University of Nebraska-Lincoln Extension presents Insect Photography Workshop



Jonni Williamson, 2008 Workshop Attendee

Saturday, June 27
9:30 am–3 pm

Spring Creek Prairie Audubon Center,
11700 SW 100 St., Denton

Do you like nature photography? Do you like to be outdoors? Need a new hobby? Come to a workshop that focuses on close-up digital photography of insects.

Presenter: Jim Kalisch,
UNL Department of Entomology

Topics include camera features/settings, basics of close-up photography, lighting, getting insects to cooperate and much more. In a feature called, "How Did You Get That Shot?," we will also examine some of the great photos taken by last year's attendees.

The educational program will take place in the morning. In the afternoon, attendees will be able to roam the prairie searching for that special photo. If you decide to stay, please bring a sack lunch; we will provide beverages.

Cost of this workshop is \$30/person or \$40/couple who can share a reference book. It is expected attendees will have a basic understanding of photographic principles, but need help taking good close-up photos. Ages 14-18 must be accompanied by a parent/guardian.

If you are interested in this workshop,
call 441-7180 to see if there is still space.

First Report of Grass-Carrier Wasp in Nebraska Since 1920

A Lincolnite found debris composed of dried grasses, tree cricket wings and legs and cocoons found between screen and storm windows this spring. It was identified to be the work of an unusual wasp not recorded in Nebraska since 1920. This "grass-carrier" wasp belongs to the family Spicidae, genus *Isodontia*. It gets its name because of its odd nesting habits. The female wasp fills nest cavities with grasses and other plants.

In nature, nests are located in hollow stalks or stems of plants, galleries in wood, abandoned bee galleries and in vertical clay banks or bluffs. Today, most people find them in the sliding tracks of windows or in the space that is left between the screen or storm window and the house window frame.

The adult wasps emerge from their cocoons in early summer, mate and the female locates a suitable nest site. She



Debris from a grass-carrier wasp's nest

collects blades of grass and grass and hay stems to line the nest cavity. The wasp flies through the air with the blades trailing beneath her. She lands at the hole and enters, pulling the blades in behind her. After the nest is prepared, she hunts for tree crickets (i.e., *Oecanthus* sp.), paralyzes them with her sting and transports them to

the nest. The wasp lays eggs on the tree crickets and the larvae feed on the paralyzed prey. Full-grown larvae spin papery cocoons when mature. There is one generation per year and the overwintering stage is the prepupal larva within the cocoon.

Like other spicid wasps, grass-carrier wasps are solitary



Nests contain dried grass, tree crickets and cocoons.

Photos UNL Department of Entomology

which means each nest is the effort of an individual female. Solitary wasps do not aggressively defend their nests. They are capable of stinging, but only if harassed or handled.

No special controls for grass-carrier wasps are necessary and chemical treatment is not necessary. Discard the nests as they are discovered (usually

when cleaning windows or changing screen windows). Prevent future nesting by plugging outdoor gaps and openings leading to interior cavities.

Sources: Iowa State University: <http://www.ipm.iastate.edu/ipm/iin/node/144> and Penn State: <http://www.ento.psu.edu/extension/factsheets/grasswasp.htm>