



WNV Surveillance and Response Recommendations

Basic surveillance for increases in mosquito populations provides good evidence of increased human risk and helps target mosquito control efforts and risk messages. As always, if it is not possible to do dead bird or mosquito surveillance, education of the public should still be a priority.

RECOMMENDATIONS

- **DEAD BIRD SURVEILLANCE**
 - Monitor and map dead bird calls (and educate people who call in)
 - If no mosquito surveillance is being done, and resources allow, **ship a few birds** throughout the year, especially early in the season and where there are clusters of calls
 - Any bird species will be tested - districts should impose restrictions as needed
- **MOSQUITO SURVEILLANCE**
 - Set gravid traps where there have been human cases, where positive horse, birds, or mosquito pools have been found previously, where mosquito complaints occur, where at-risk populations live, or where public use areas are located; use map data to avoid clustering trap sites
 - Where possible, set light traps at the same sites to monitor overall mosquito populations, especially where EEE is a problem. If you are using light traps, do not send nulliparous mosquitoes for testing. They have never had a blood meal and will not be positive. Wait to collect at least a week after a large emergence before shipping mosquitoes for testing.
 - Begin determining the best locations for fixed trap sites - **don't keep moving traps** after a positive pool is found; changes in mosquito populations can only be determined where historic data are available
 - ALL mosquito traps sites need GPS coordinates in decimal degree format
 - For WNV, monitor mosquito populations to determine when the number of *Culex* spp are rising starting in April or May in north Georgia and as soon as evening temperatures are consistently above 50° in South Georgia. In EEE endemic areas, monitor *Culiseta melanura* populations starting as soon as temperatures begin to rise.
 - Ship mosquitoes for testing starting in July in north Georgia and May in South Georgia (*Culiseta melanura* only until July). Graph weekly *Culex* spp population data at each trap site and combine like sites to create larger surveillance/control areas. Action points for reducing vector-borne disease risk occur when mosquito populations are higher than average in a specified control area.
 - **UNLESS YOUR COUNTY HAS AN INDEPENDENT CONTRACT WITH SCWDS FOR TESTING, the number of pools and the species of mosquito that can be shipped for testing is restricted due to limited funding, so please contact GDPH before shipping mosquito pools.** Mosquitoes that can be shipped for testing are *Culex quinquefasciatus*, *Cx restuans*, *Cx nigripalpus*, *Cx salinarius*, *Cx erraticus*, *Cx coronator*, *Ochlerotatus triseriatus*, *Coquillettidia perturbans*, *Culiseta melanura*, *Aedes aegypti*, and *Oc japonicus*.
 - If you have no resources to do mosquito surveillance and see a need for some localized surveillance, please do not hesitate to call (404-408-1207). I will come out to do some surveillance as soon as possible.
- **OTHER**
 - Strengthening relationships with local veterinarians will provide better information on horse cases locally
 - Map positive horse sites and provide education for horse owners



RESPONSE TO SURVEILLANCE (actions)

- Larviciding should start as early in the year as is possible after water temperatures begin to rise; use a formulation appropriate to the scheduling of control. Check the Georgia Mosquito Control Association site (www.GAmosquito.org) for information on mosquito control industry representatives working in Georgia.
- NEED TO PERSONALIZE RISK - personal contact has been found to be more effective than media reports for getting the personal protection risk reduction messages to the public (National WNV conference 2004).
- Increasing numbers of *vector species* may be used to trigger a public health message and/or mosquito control efforts locally (Example: INCREASING NUMBERS OF *CULEX* SPP INDICATE THAT HUMAN RISK FOR WNV MAY BE RISING).
- Positive results should be used to either trigger a public health message and/or mosquito control efforts in the surveillance area, if it is available. Levels of risk can be used when talking to the public (see <http://www.cdc.gov/ncidod/dvbid/westnile/resources/wnvguidelines2003.pdf>, p. 43).
- Positive birds indicate transmission is occurring, while positive mosquitoes indicate increased risk of transmission locally.
- Positive horses or other animals are an indication of high local human risk and should be acted upon ASAP.
- **Education should occur whenever anyone talks to a member of the public**, whether answering the phone, picking up a dead bird, larviciding, or setting out mosquito traps. It is important to do as many of these activities simultaneously as is possible to use worker time more efficiently.
- Information on arboviral disease surveillance done in Georgia can be found at <http://health.state.ga.us/epi/vbd/departments.asp>