

Inverts

Survey Plan

Event Coordinator: Kyle Allison, Email: kyleallison@tamu.edu, Phone: 940-395-5661

Survey Coordinator: Ryan Taylor, Email: taylor22@tamu.edu, Phone: 361-425-9903

Invertebrate Team Leaders:

- Ed Riley ENTO-TAMU (979 845 9711, egrchryso@tamu.edu)
- Marian Cothran (marian.cothran@hotmail.com)

SURVEY PLAN FOR INVERTEBRATES: DRAFT 2/27/09

The inventory of invertebrates in Lick Creek Park is a huge undertaking! It is difficult to get a complete list of species for some of the taxonomic groups of insects that are so diverse. For example, Ed Riley has been working on the beetles for decades. Entomologists collect and share the biological information through online information systems such as the TIARA Biodiversity Project, a collaborative on-line effort:

<http://www.csd.tamu.edu/tiara/>

There is a continuous monitoring effort in the park, for teaching purposes. Flying insects are captured using “funnel traps” with a cloth “tent” and capture vessel. Please do not disturb these sampling devices if you see them in the park as they represent “Science in Action”.

Black-lighting for insects that fly at night is a way of monitoring nocturnal species, such as moths. This is a way of counting the common species and discovering the rare species. The light attracts many species that we usually do not see during the day.

Sweep netting in grass and low vegetation is a way of sampling for insects that move around more by hopping and crawling than by flying. To sample butterflies using a net, locations where they are foraging for nectar are a good place to look. Larvae may be sampled by looking under bark, fallen branches, or putting out structures where they like to hide in decaying leaves.

Dip nets are useful for sampling the invertebrates in the ponds, puddles and creeks. Many of these are food for fish and other aquatic organisms. Which species we find can provide clues to water quality.

College Station wants to know how the diversity of insects changes over time. The vegetation types are changing in Lick Creek Park. The park is becoming more of an isolated fragment of habitat as subdivisions are developed around the periphery.

1. What types of invertebrates might be indicators of changes in health of the ecosystem?
2. What species do we no longer find in the park, which used to be there, e.g. harvester ants?
3. What invasive species are coming into the park attracted by human activities?
4. What new native species have moved into the park, which we did not record previously?

5. Are there insect outbreaks in the park?
6. What invertebrate species might be sensitive to human activities in this park?
7. What species might be a safety risk to park visitors?