



## **USDA-CSREES 2007 National Water Quality Conference**

### [Detecting Leptospira in Water](#)

Leptospirosis is the most widespread zoonosis in the world (Levett, 2000) and is problematic for a variety of public sectors. Human infection typically occurs when an individual comes into contact with waters contaminated by pathogenic *Leptospira*. Detecting and managing freshwater contamination is difficult because little is known about the occurrence of *Leptospira* in water supplies. This investigation evaluates the performance of a two-part environmental test for *Leptospira* that consists of isolation and detection procedures. Filtration is used on large volume stream samples, and quantitative detection is performed using fluorescent antibodies (FA). Initial filtration work has focused on quantifying the concentrations of starting, eluting, and wash suspensions of pure diluted *Leptospira icterohaemorrhagiae icterohaemorrhagiae* M20. Studies are ongoing and tentative results indicate synthetic filter membranes with low levels of protein binding may optimize efficiency. The antibody application technique is also under current evaluation, but results are limited at this time.

Author: Ilima Hawkins

University Affiliation: University of Hawaii

Co-Author(s): Mark Walker and Carl Evensen