

## Oxytetracycline-Injectable Clinical Field Trials - INAD 9027

### **Year 2007 Annual Summary Report on the Use of Oxytetracycline-Injectable in Field Efficacy Trials**

Prepared By:

Bonnie Johnson, Biologist  
U.S. Fish and Wildlife Service  
Bozeman National INAD Office  
Bozeman, Montana

#### **Summary**

The efficacy of injectable oxytetracycline (OTI) to prevent and/or control mortality of test fish caused by certain fish pathogens was evaluated under Compassionate Investigational New Animal Drug Exemption #9027 for the purpose of collecting pivotal and ancillary efficacy data to support a new animal drug approval for OTI; however, no studies were completed during calendar year 2007 (CY07).

#### **Introduction**

In warmwater fish culture, injectable oxytetracycline has been found to be efficacious for the control of bacterial hemorrhagic septicemia, pseudomonas disease, and enteric septicemia of catfish caused by *Edwardsiella ictaluri*. Fish culturists have also reported oxytetracycline to be effective against flexibacteriosis in catfish, sturgeon, paddlefish, temperate basses, sunfishes, and other fish species. There is speculation that an injectable form of oxytetracycline will also be effective in controlling mortality of

other fishes caused by systemic bacterial infections. Although integrated fish health management practices are often successful in preventing many fish disease outbreaks, adverse environmental conditions, fish handling procedures, physiological changes related to the onset and completion of spawning, and other culture-related factors can lead to severe disease outbreaks requiring prompt treatment. Therefore, an injectable antibiotic has the potential to effectively prevent losses to broodstock and other valuable non-feeding fish. Such treatment also reduces the discharge of infectious agents into the environment, thereby reducing the spread of disease to both cultured and wild fish.

Treatment strategies for the use of oxytetracycline as an injectable (OTI) have been designed primarily to prevent or control pre- and post-spawning mortality in valuable broodstock populations. The overall objective of these studies was to minimize the impact of disease on fish health, fish quality, and survival in order to fully meet fishery management objectives. As many factors can affect the success or failure of oxytetracycline therapy, data were collected on a variety of parameters to help determine appropriate use patterns for OTI under routine fish culture conditions. These data should provide valuable information with respect to potential OTI use patterns in aquaculture.

### **Number of Treated Fish under Slaughter Authorization**

Total number of treated fish during CY07 was zero. The total number of treated fish to count against the slaughter authorization dated June 27, 2002 (valid through January 10, 2008) is 8,002. Please note this authorization was superceded on January 11, 2008; and no changes have occurred to the current OTI INAD #9027 study protocol.

### **Facility Sign-up List**

Please see “Table 1. Facilities and Names of Investigators” for facilities that signed-up to participate in the OTI INAD #9027 during CY07. Please note that none of these facilities received OTI on station during CY07.

### **Summary of Study Results**

No studies were conducted under OTI INAD #9027 during CY07.