

**Fisheries and Illinois Aquaculture Center
Southern Illinois University
Carbondale, IL
Standard Operating Procedure**

Number: 21.1

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Title: Observation of Fish

Implementation Date: September 30, 2005

Purpose: This SOP describes the methods for observing and recording observational data.

Procedure:

Once the test species has hatched they will be observed 4 times daily during the acclimation period. Observations will include the presence of the yolk sac, fish distribution, the flight or fright response, and feeding response. The observations will be recorded on the Acclimation Period Observations Form. Yolk sac presence will be defined as (1) present; (2) absent. Fish distribution will be defined as: (1) Dispersed (fish generally dispersed throughout the tank; normal); (2) Crowded (fish generally crowded at the water flow inlet; abnormal); or (3) Podded (fish generally congregated in a shaded area of the tank; abnormal). The flight/fright response is to be assessed by slowly waving an arm over each tank. During the first observation of the day, the fright or flight response needs to be tested prior to tank cleaning. The flight/fright response will be categorized as follows: (1) Lethargic (fish seem unresponsive with little to no flight/fright response; abnormal); (2) Normal (fish are dispersed throughout the water column and react to movement by podding or rapid movement away from the movement, then appear to calm relatively quickly); or (3) Frantic (fish make erratic bursts to evade the movement source, seem to bounce off the walls; abnormal). Feeding observations will be categorized as follows: 0 = Poor: fish do not swim toward food or actively intake feed resulting in most or all of the food on bottom of the tank (abnormal); 1 = Average: majority of the fish swimming toward and actively taking in feed resulting in approximately half of the food remaining on the bottom of the tank (normal); 2 = Vigorous; all fish swimming toward feed and actively taking in feed resulting in little to no food on the bottom of the tank (normal). Record the number of dead and moribund fish on the Mortality Record Sheet. If dead fish occur, contact veterinarian for necropsy.

Once the fish are 6 days of age they will be fed a diet containing 0, 60, 120, or 300 mg/kg 17 α -methyltestosterone 4 times daily. Fish will be observed 4 times daily during the treatment period. Observations will include fish distribution, the flight or fright response, and feeding response. The observations will be recorded on the Treatment Observations Form. Fish distribution will be defined as: (1) Dispersed (fish generally dispersed throughout the tank; normal); (2) Crowded (fish generally crowded at the water flow inlet; abnormal); or (3) Podded (fish generally congregated in a shaded area of the tank; abnormal). The flight/fright response is to be assessed by slowly waving an arm over each tank. During the first observation of the day, the fright or flight response needs to be tested prior to tank cleaning. The flight/fright response will be categorized as follows: (1) Lethargic (fish seem unresponsive with little to no flight/fright response; abnormal); (2) Normal (fish are dispersed throughout the water column and react to movement by podding or rapid movement away from the movement, then appear to calm relatively quickly); or (3) Frantic (fish make erratic bursts to evade the movement source, seem

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APPROVED BY: _____ **DATE** _____
Study Director

ACCLIMATION PERIOD OBSERVATION RECORD

INSTRUCTIONS: Complete one form for each tank of fish in the study (fish are observed 4 times daily)- attach extra pages if necessary. Fill in all blanks - use "N/A" if not applicable. In the observation column, the presence of yolk sac, fish distribution and the flight or fright response should be recorded along with any other observations. Yolk sac presence will be defined as (1) present; (2) absent. Fish distribution will be defined as: (1) Dispersed (fish generally dispersed throughout the tank; normal); (2) Crowded (fish generally crowded at the water flow inlet; abnormal); or (3) Podded (fish generally congregated in a shaded area of the tank; abnormal). The flight/fright response is to be assessed by slowly waving an arm over each tank. During the first observation of the day, the fright or flight response needs to be tested prior to tank cleaning. The flight/fright response will be categorized as follows: (1) Lethargic (fish seem unresponsive with little to no flight/fright response; abnormal); (2) Normal (fish are dispersed throughout the water column and react to movement by podding or rapid movement away from the movement, then appear to calm relatively quickly); or (3) Frantic (fish make erratic bursts to evade the movement source, seem to bounce off the walls; abnormal). Feeding observations will be categorized as follows: 0 = Poor: fish do not swim toward food or actively intake feed resulting in most or all of the food on bottom of the tank (abnormal); 1 =Average: majority of the fish swimming toward and actively taking in feed resulting in approximately half of the food remaining on the bottom of the tank (normal); 2 =Vigorous; all fish swimming toward feed and actively taking in feed resulting in little to no food on the bottom of the tank (normal). Record the number of dead and moribund fish on the Mortality Record Sheet. If dead fish occur, contact veterinarian for necropsy.

Tank No. _____

DATE COMMENTS/OBSERVATIONS

Initials	Yolk sac:
	Fish Distribution:
	Flight or Fright Response:
	Feed Response:
	Additional Comments:

DATE COMMENTS/OBSERVATIONS

Initials	Yolk sac:
	Fish Distribution:
	Flight or Fright Response:
	Feed Response:
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DATE COMMENTS/OBSERVATIONS

Initials	Yolk sac:
	Fish Distribution:
	Flight or Fright Response:
	Feed Response:
	Additional Comments:

DATE COMMENTS/OBSERVATIONS

Initials	Yolk sac:
	Fish Distribution:
	Flight or Fright Response:
	Feed Response:
	Additional Comments:

TREATMENT OBSERVATION RECORD

INSTRUCTIONS: Complete one form for each tank of fish in the study (fish are observed 4 times daily)- attach extra pages if necessary. Fill in all blanks - use "N/A" if not applicable. In the observation column, the presence of yolk sac, fish distribution and the flight or fright response should be recorded along with any other observations. Fish distribution will be defined as: (1) Dispersed (fish generally dispersed throughout the tank; normal); (2) Crowded (fish generally crowded at the water flow inlet; abnormal); or (3) Podded (fish generally congregated in a shaded area of the tank; abnormal). The flight/fright response is to be assessed by slowly waving an arm over each tank. During the first observation of the day, the fright or flight response needs to be tested prior to tank cleaning. The flight/fright response will be categorized as follows: (1) Lethargic (fish seem unresponsive with little to no flight/fright response; abnormal); (2) Normal (fish are dispersed throughout the water column and react to movement by podding or rapid movement away from the movement, then appear to calm relatively quickly); or (3) Frantic (fish make erratic bursts to evade the movement source, seem to bounce off the walls; abnormal). Feeding observations will be categorized as follows: 0 = Poor: fish do not swim toward food or actively intake feed resulting in most or all of the food on bottom of the tank (abnormal); 1 =Average: majority of the fish swimming toward and actively taking in feed resulting in approximately half of the food remaining on the bottom of the tank (normal); 2 =Vigorous; all fish swimming toward feed and actively taking in feed resulting in little to no food on the bottom of the tank (normal). Record the number of dead and moribund fish on the Mortality Record Sheet. If dead fish occur, contact veterinarian for necropsy.

Tank No. _____

DATE	COMMENTS/OBSERVATIONS
Initials	Fish Distribution:
	Flight or Fright Response:
	Feed Response:
	Additional Comments:

DATE	COMMENTS/OBSERVATIONS
Initials	Fish Distribution:
	Flight or Fright Response:
	Feed Response:
	Additional Comments:

DATE	COMMENTS/OBSERVATIONS
Initials	Fish Distribution:
	Flight or Fright Response:
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Initials	Fish Distribution:
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