

FLSC Standard Operating Procedure for Breeding Quarantined Zebrafish

Purpose

Occasionally, zebrafish are acquired from other facilities or from local pet stores. Zebrafish from outside sources are quarantined to prevent contamination of the established zebrafish colonies and the recirculating water systems. Quarantined fish are bred in isolated tanks and only the offspring are placed in tanks on the water system.

Procedure

1. Quarantined fish are housed in small aquaria from 1 to 4 liter tanks.
 - a. The tanks are placed on a counter top in FLSC rooms 511, 509, or Galvin room 022.
 - b. Tanks for quarantine in room 022 can be placed on the stand alone rack system.
 - c. Tanks on the counter are equipped with air tubing or an air stone.
 - d. Filters and heaters may also be used for the larger tanks housing larger groups of fish.
2. To breed quarantined fish:
 - a. The breeders are removed from the quarantine tanks and placed in a breeder tank on the counter.
 - b. There are multiple options of breeder tanks to choose from: suspended tanks with or without dividers, individual one liter breeder tanks.
 - c. The breeder tanks have mesh or slits on the bottom to allow the eggs to fall through.
 - d. Breeder tanks are set up on the counter top, or on the stand alone rack in Galvin 022.
 - e. All tanks will be identified with the appropriate family ID and bar code on the tank.
 - f. The dividers are pulled by either the investigator's lab personnel.
 - g. The following morning, the eggs are collected by the investigator's lab personnel.
 - h. After egg collection, the breeder fish are returned to their original quarantine tank.
3. To place offspring on the system
 - a. Eggs collected are rinsed and hatched in a static container (petri dish).
 - b. Once hatched they are transferred to static beakers and as they grow are placed into larger static tanks.
 - c. Once they have reached a size suitable for placing on the recirculating water system, they are transferred to a flow through tank and place on the system.