



MANGROVE KILLIFISH
Rivulus marmoratus
**STANDARD OPERATING
PROCEDURES**

Updated December 2005

Housing:

All animals in the breeding colony are maintained in room 165, Aqualab. This room is environmentally controlled (see SOP for Room 163 and 165). Air and water temperature are maintained at 25°C. Photoperiod is set at 12-12 hour, lights on at 7:00 AM and off at 7:00 PM. Fluctuations in air temperature are monitored and alarmed by the Aqualab control system. Donations from other laboratories are sometimes received to provide genetic diversity. Males, females, hermaphrodites, embryos and juveniles of this species are held individually in 150 ml plastic containers. The jars are filled with brackish water with a salinity of 17 ‰ (Forty Fathom™ sea water mixture; 17 gm salt per litre of deionized water).

Aeration:

Physical aeration is unnecessary. Adequate oxygen diffuses across the air-water interface.

Feeding:

Killifish are fed a 2 ml water suspension of Brine shrimp (*Artemia salina*) nauplii daily. *Artemia* are raised in the same environmental chamber as the fish. (See Standard Operating Procedure for Artemia Culture)

Cleaning:

Jars are checked daily for fertilized eggs. Fertilized eggs are removed with an eye dropper from the single parents' containers and put in rearing containers. Once a week the water in each jar is replaced with new water. The jars are scrubbed clean with fresh hot water once per month.

Records:

Records of numbers, species, tank assignment, date of arrival, and date of death are maintained by the primary researcher.

Each animal in the colony is given an identification number. This number is entered into a data base and the individuals genetic history is recorded. Information maintained includes birth, death, progeny, treatments (temp, hormone, food).

Euthanasia:

Fish to be euthanised are placed in a container with 200 ppm Clove oil and held until

dead. Death is determined by no response to external stimulus.

Veterinary care is on a consultative basis only. Advice for the treatment of diseased fish is sought from the OVC Fish Pathology Lab.