

*Xiphophorus maculatus*, Belize Platy II



Female(++)



Male (blue, M, pgs)

Strain Code: BpII

Phenotypes scored: Body colors; Body red (Br), Spotted Dorsal (Sd), iridescent blue (blue), wild type body (+); Tail-spot patterns; moon (M), wild type (+); Other patterns; shoulder spot (ss), pseudo-gravidity spot (pgs).

Introduction:

About 60 *X. maculatus* BpII arrived at the Stock Center on August 13, 2003 from Dr. Harry Grier. The fish were originally collected at Kate's Lagoon in Belize under a collecting permit issued to Craig Watson. A handful of the many varying color patterns represented in the population were chosen to perpetuate the stock. The four main body colorations include Body red (Br), Spotted Dorsal (Sd), iridescent blue (blue), and wild type body (+). Segregation of these color patterns indicates that Br, Sd and + are linked to Y chromosomes in a WY/YY sex determining mechanism. The segregation of the blue phenotype and the Moon (M) tail-spot pattern indicates that these two patterns are inherited autosomally.

Sex determination / sexing:

The chromosomal mechanism for sex determination in this stock is WY / YY. Sex should be determined early in these fish, at about one month of age, because early maturation rates may exist in this stock. However, because the later maturing alleles may also exist in this stock, all fish should be closely observed for any late developing males. Fish are generally mature and ready to mate at about 4 to 5 months of age.

Scoring:

Fish are scored with the unaided eye for Br, Sd, blue, +, M. Also presence or absence of shoulder spot (ss) and pseudo-gravidity spot (pgs) is also noted although the inheritance of these patterns has not yet been worked out. All mature fish are measured upon fixing or discarding to collect data on maturation rates.

Maintenance:

Currently this stock is maintained by setting up 2 crosses each for the following color patterns; Br, Sd and blue; in which each mating has one fish with the given color and one wild-type fish. Moon is maintained with in these matings in a heterozygous state by mating one fish expressing M to one that is not. The mating plan will look as follows;

Two matings to maintain Br:

Br, M, ss female      x      +, pgs male

+ , M female              x      Br, + male

Two matings to maintain Sd:

+ , ss female              x      Sd, M, pgs male

Sd, M female              x      +, ss, pgs male

Two matings to maintain blue:

Blue, M ss female      x      +, pgs male

+ female                      x      blue, M male

Note that ss and pgs may not be in all of the matings, but these patterns should be scored and recorded.

Stock source:

Dr. Harry Grier, Florida, received 8/13/03.